**EDUCATIONAL UTOPIA? THE NEW ZEALAND STANDARDS
APPROACH CONSIDERED IN THE LIGHT OF THE GERMAN
EXPERIENCE IN VOCATIONAL TRAINING**

by

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This thesis is concerned with both the direction and the appropriateness of the recently adopted standards-based approach in post-compulsory education and training in New Zealand, while particularly focussing on the implications this might have in formal post-school trades training. It evaluates the developments, the tenets, and the early results of the 'standards' movement within a socio-historical context and against the development of relevant policy formations and legislative changes. The central focus in this work is on the National Qualifications Framework, which is currently being developed under the auspices of the New Zealand Qualifications Authority. This outcomes-focussed model, and related government-initiatives, represent a radical shift away from established learning and teaching practices in New Zealand, a move which is not uncontested for both pedagogical and pragmatical reasons. An analysis of these developments is discussed with reference to those in apprenticeship training and policy in the Federal Republic of Germany, which includes the intention, as expressed by the major role players in the Republic, to develop an educational framework model. The principles, scope, and structure, as they relate to these framework models, are analysed from a comparative perspective, and certain points are highlighted.

This thesis contends that despite fundamental divergences in training cultures and systems in the two countries, it is recognised that the common aim of the framework approaches is to improve the correspondence between the world of education and work as well as to enhance the educational pathways for students. This, it is argued, are commendable and valuable aims; not in the least because it has also the potential to bridge the 'vocational/academic' divide - an increasingly invalid division in modern-day societies. This is reflected in a strong focus in these framework models on the promotion, and implementation, of an integrated learning and teaching approach which is supported by the notion introduced by Michael Young that qualifying is a continuous process. This concept is now generally endorsed by the major role players in both Germany and New Zealand as being an important one, in that it is supportive of the macro aim of furthering national economic progress. The author, however, contends that educational progress cannot simply be assumed because a new educational, or qualifications, framework is being introduced. Its foundation needs to be pedagogically sound and based on sufficient research while an (over)reliance on a single assessment strategy for application to all of post-compulsory education and training cannot be accepted as valid from an educational viewpoint. The thesis concludes with advocacy for more critical research into the NQF.

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GLOSSARY

TYPES OF SCHOOL

<i>Grundschule</i>	- primary school
<i>Hauptschule</i>	- general secondary school (grades 5-9)
<i>Realschule</i>	- intermediate secondary school (grades 5-10)
<i>Gymnasium</i>	- grammar school (grades 5-13)
<i>Gesamtschule</i>	- comprehensive secondary school
<i>Kollegschule</i>	- sixth-form college
<i>Abendgymnasium</i>	- evening gymnasium
<i>Berufliches Gymnasium/ Fachgymnasium</i>	- vocational gymnasium (grades 11-13)
<i>Berufsaufbauschule</i>	- vocational extension school
<i>Berufsschule</i>	- part-time vocational school
<i>Berufsfachschule</i>	- full-time vocational school
<i>Fachschule</i>	- technical school
<i>Fachoberschule</i>	- technical secondary school
<i>Fachhochschule</i>	- college of higher education
<i>Gesamthochschule</i>	- comprehensive university
<i>Universität</i>	- university
<i>Sekundarstufe I</i>	- junior secondary school
<i>Sekundarstufe II</i>	- senior secondary school

TYPES OF QUALIFICATIONS

<i>Abitur</i>	- gymnasium leaving certificate
<i>Allgemeine Hochschulreife</i>	- general qualification for university entrance
<i>Facharbeiterbrief</i>	- skilled worker's certificate
<i>Fachhochschulreife</i>	- Fachhochschule entrance qualification
<i>Gesellenbrief</i>	- journeyman's certificate
<i>Diplom</i>	- Diploma (degree)
<i>Der Grad Magister Artium</i>	- Master of Arts degree

VET-SPECIFIC TERMS

<i>Arbeitsförderungsgesetz</i>	- Employment Promotion Act
<i>Ausbildungsberuf</i>	- training occupation
<i>Ausbildungsberufsbild</i>	- training occupation profile
<i>Ausbildungsordnungen</i>	- training ordinances
<i>Ausbildungsrahmenplan</i>	- outline training plan
<i>Beruf</i>	- occupation
<i>berufliche Handlungskompetenz</i> or	

<i>berufliche Tüchtigkeit/Handlungsfähigkeit</i>	- occupational performance competence
<i>berufliche Mündigkeit</i>	- vocational maturity
<i>Berufsausbildung</i>	- vocational training
<i>Berufsbildungsförderungsgesetz</i>	- Vocational Training Promotion Act
<i>Berufsbildungsgesetz</i>	- Vocational Training Act
<i>Berufsgrundbildungsjahr</i>	- basic vocational training year
<i>Berufsgrundschuljahr</i>	- basic level training in a trade field
<i>Berufspädagogik</i>	- occupational pedagogics
<i>Externenprüfung</i>	- external examination
<i>Facharbeiter</i>	- skilled worker
<i>Facharbeiterberuf</i>	- skilled worker occupation
<i>Fachwirt</i>	- (middle level) business specialist
<i>Grundberufe</i>	- basic occupations
<i>Handwerk</i>	- craft sector
<i>Handwerksordnung</i>	- Crafts Code
<i>Industriefachwirt</i>	- industrial business specialist
<i>Industriemeister</i>	- industrial master tradesperson
<i>Ingenieur</i>	- engineer
<i>Meister</i>	- master craftsman
<i>pädagogische Handlungskompetenz</i>	- pedagogical action competence
<i>Qualifikationen</i>	- combination of skills, knowledge and attitudes
<i>Schlüsselqualifikationen</i>	- core skills (or key qualifications)
<i>Techniker</i>	- technician

FEDERAL GOVERNMENT BODIES

<i>Bundesanstalt für Arbeit (BA)</i>	- Federal Employment Office
<i>Bundesinstitut Berufsbildung für (BiBB)</i>	- Federal Institute for Vocational Training
<i>Bundesministerium für Bildung Wissenschaft, Forschung und Technologie (BMBF)</i>	- Federal Ministry of Education, Science, Research and Technology
<i>Bund-Länder Kommission für Bildungsplanung und Promotion Forschungsförderung (BLK)</i>	- Federation-Länder Commission for Educational Planning and the Promotion of Research
<i>Kultusministerkonferenz (KMK)</i>	- Standing Conference of the Ministers of Education and Cultural Affairs of the Länder of the Federal Republic of

Germany

MAJOR INTEREST GROUPS IN VET

<i>Bundesverband der Deutschen Industrie (BDI)</i>	- Federal Association of the German Industry
<i>Bundesvereinigung der Deutschen Arbeitsgeber-Verbände (BDA)</i>	- Federal Organisation of German Employer Associations
<i>Deutsche Industrie- und Handelstag (DIHT)</i>	- German Chambers of Commerce and Industry
<i>Deutscher Gewerkschaftsbund (DBG)</i>	- German Trade Unions' Association
<i>Zentralverband des Deutschen Handwerks (ZDH)</i>	- Central Association of the German Craft Sector

MISCELLANEOUS TERMS

<i>Abiturienten</i>	- gymnasium graduates
<i>Allgemeinbildung</i>	- general education
<i>Anpassungsweiterbildung</i>	- job adjustment education
<i>Arbeit</i>	- labour
<i>Aufstiegsweiterbildung</i>	- career extension education
<i>Bildung</i>	- education
<i>Bildungsideal</i>	- idealistic education approach
<i>Bildungspolitik</i>	- education policy
<i>Fähigkeiten</i>	- abilities
<i>Fertigkeiten</i>	- skills
<i>Fortbildungberufe</i>	- further education occupations
<i>Grundgesetz</i>	- Basic Law
<i>Kenntnisse</i>	- knowledge
<i>Kompetenz</i>	- competence
<i>Kulturhoheit</i>	- cultural sovereignty
<i>Land/Länder</i>	- federal state/s
<i>Mitbestimmung</i>	- co-determination
<i>soziale Marktwirtschaft</i>	- social market economy
<i>Weiterbildung</i>	- further education
<i>Zweiter Bildungsweg</i>	- second education path

CHAPTER 1 INTRODUCTION

METHODOLOGY

This thesis sets out to critically appraise the newly adopted outcomes approach to education and training in New Zealand with regard to its direction, appropriateness, and expected results given the design and the implementation of policies governing it. This outcomes or 'standards' based training and assessment regime will be discussed within the framework of the tertiary education reforms, covering the period 1984-September 1996, and with reference to the broader social and economic objectives of the government (1). An historic account of the development of apprentice training precedes the discussion.

A discourse on issues relating to the correspondence between education and work, while particularly focussing on the changing role and purpose of vocational education and training (VET) in a New Right-dominated ideological and economic environment is included. Attention will also be paid to the efforts made in New Zealand in bridging the 'academic/vocational' divide. Research into the German training system has been undertaken so as to provide a basis for comparison with the new policy directions taken in New Zealand regarding the organisation, content, and delivery of VET.

This comparative education research examines the level of desirability and feasibility for New Zealand to adopt elements of the German apprenticeship system in its own VET system at a time when the domestic training, curriculum, and qualifications reforms have neither been fully implemented by government agencies nor fully understood by the public at large. Conversely, because the German training system has increasingly been criticised for its rigidity and outmoded way of providing

training, the new New Zealand 'standards' model may serve as an example for consideration in Germany.

The reason for choosing Germany as an exemplar country to compare our VET reforms against is that its dual system of vocational training has been acknowledged world-wide as one of the most successful systems around, and because of this, it has become a well-known education export product (Hayes, 1984; Heckman *et al.*, 1993; Deissinger, 1994a). However, the more important reason for selecting Germany is based on the fact that their approach of apprenticeship modernisation continues to rely on a method of innovation, which differs conceptually from New Zealand's standards-based approach to education which represents a radical departure from existing educational practices.

It is because of these diverging approaches to VET in Germany and New Zealand, and indeed world-wide, as stated before, that a comparative approach is potentially valuable since it occurs at a time when education and training have to increase their responsiveness in order to meet the needs of the economy. Clearly, many dissimilarities exist between the two countries in education and training, but also with regard to their history, culture, demography, economy, and so on (see also chapter 11). On the other hand, issues and problems in education and training can be considered at a general level compatible cross-nationally.

However, countries may, and do, respond to particular problems and issues in different ways because of respective traditions and country-specific conditions (Eckstein, 1988). Comparative education research methodology must therefore be clearly specified so as to ensure that it is both valid and reliable. But before proceeding in this direction, the aim or purpose of comparative education must be clarified. Postlethwaite (1988) states that there are four major aims of comparative education; *viz.* to identify what occurs elsewhere that might improve one's own system of

education; to describe the similarities and differences in educational phenomena between education systems and the interpretation as to why they exist; the estimation of relative effects of variables on outcomes both within and between systems of education; and, the identification of general principles concerning educational effects.

This thesis endeavours to make a contribution to, firstly, the academic discipline of comparative education and, secondly, to policy-making in VET in New Zealand. The perceived strength of comparative education is that it 'can help us to understand better our own past; locate ourselves more exactly in the future; and discern a little more clearly what our education future may be' (Noah, 1983, quoted in Postlethwaite, 1988). It certainly can assist in making changes in education policy and afford furthering our knowledge about the field under discussion (Jones, 1971).

In order to achieve these research aims, a number of methods have been applied. While one of the two methods may be regarded as conventional in the positivist tradition, the second is less traditional. Bereday's (Jones, 1971:88-92) four stages methodology is used as a conventional guideline in this research, which is extended by Richard Rose's more experimental method of prospective evaluation.

Bereday (*ibid*) designed a methodology that specifically applies to a two-country comparison of education systems. In the first two stages of the process the pedagogical data in country A and B are described and the data gathered is being cross-interpreted, while having particular regard for the interlinking between historical, geographical, economic and sociological data, and educational details. The third stage comprises the establishment of differences and similarities and the formulation of a hypothesis, which is followed by a 'simultaneous' comparison in the final stage.

In spite of the obvious advantages this methodology provides to comparative education researchers, its static cross-national approach does not take into account the cross-time dimension. Rose's (1991) method of prospective evaluation encompasses both the cross-national and cross-time dimensions as it compares one country's 'present' with the 'future' of another. Prospective evaluation applied to this research considers under what circumstances and/or to what extent New Zealand could adopt in the foreseeable future elements of the German VET system as effectively as it is today in Germany.

This method, obviously, is experimental in that it sets out to test hypotheses by reference to future events. Its approach is based on an understanding, in this case, as to how VET policy works in Germany, which corresponds basically to the first two stages of Bereday's methodology. It not only offers a critical reflection of VET reforms, which could be achieved by using conventional methods only, but it also embodies a forward-looking comparative evaluation that is aimed to assist improving future VET policy-making in New Zealand.

Educational borrowing is now considered by comparative researchers to be fraught with difficulties (Jones, 1971; Rose, 1991; McLean, 1992; Welch, 1993), as opposed to the 1960s and 1970s when it was rather common to copy foreign practice. Nowadays, considerations of class, culture, and the role of the State rightfully deserve a great deal of attention in comparative education research, because for understanding foreign practice one has to examine not only the overall educational culture (McLean, 1992), but also the broader societal context in which that culture is embedded (Welch, 1993).

Comparative (education) policy research is regarded as a young field, but has the potential to play a major role in informing policy-makers (Coombs, 1988). Using experimental research methods, such as prospective

evaluation, it is my contention, needs to be complemented with common research methods, not contravene it. Thus, critical educational policy analysis (Prunty, 1985) should also be applied where possible, since this 'method' sets out to clarify both the moral and ethical implications of policy research. It sees policy as being 'the authoritative allocation of values' (Kogan, 1985:136), a definition to which I subscribe. Thus a researcher's stance on an issue must be chosen with care.

DATA COLLECTION METHODS

Limited fieldwork was conducted in Germany in December 1993, during which period eight people - representatives of employers, trade unions, examination and vocational training authorities, and the German Federal Ministry of Education and Science - were interviewed. A questionnaire with sector-specific research questions was used and complemented by the asking of unstructured questions during the interviews. This approach was completed with document analysis and library research in New Zealand.

This period of fieldwork-based research in Germany was complemented by an additional period of six weeks spent in the unified German Republic in 1995, from March to April. During this second period, data was gathered by means of a review of literature, interviews, and library research. About four weeks were spent on doing library research at universities (Frankfurt, Bochum and Giessen) and research institutes (the German Institute for International Educational Research in Frankfurt, the Max Planck Institute for Human Development and Education in Berlin, and the Institute for Labour Market and Occupational Research at the Federal Employment Office in Nuremberg).

The remainder of time that was available was spent on meeting VET experts (see appendix 1). Two weeks of fieldwork were spent at the offices

of the Federal Institute for Vocational Training (BiBB) in Bonn and Berlin which can be regarded, in some respects, as being the German counterpart of the New Zealand Qualifications Authority (NZQA). And in addition, I participated in a three-day expert seminar on in-company training methods in Germany.

All the respondents to this research were selected on the basis of their role in the VET system and the potential contribution they could make. In the preparatory stage of this work a general list of questions was compiled covering not only the research focus but also addressing some wider issues relevant to the research topic. Moreover, specific research questions were formulated for each organisation visited, which were sent to Germany prior to my fieldwork there. Interviews were usually audio-taped, and transcribed after returning to New Zealand. Also, contact has been maintained with various organisations and people in Germany, and some of the respondents supplied further data and documents, while others were helpful in commenting on draft chapters.

In New Zealand, parallel interviews were conducted with key people (see appendix 1) in education and training, which were conducted mainly in the course of 1994. Follow-up and additional interviews were held in 1995 and 1996. Normally, a letter requesting a person's participation was sent and he or she was asked to return a response sheet. It is logical, given my employment with NZQA, that a relative large number of interviews and informal conversations were conducted with Authority staff (2). Research was done in a number of departmental libraries, and the National Archives, and seminars and conferences relevant to the research area were attended where possible. The interview data were transcribed and categorised as per the research foci, and analysed per country, followed by a cross-national comparison in accordance with specified methodologies.

It needs to be clarified at this point that NZQA has provided generous support for this research to the writer. Firstly, financial support was made available under the study assistance provisions for permanent staff. Secondly, most of the staff members I approached during this research for an interview, written information or informal discussion were generally very accommodating and helpful. However, on a number of occasions restrictions were placed on this research by some of NZQA's senior staff members as requests for interviews and up-to-date information were declined.

In essence, this research has focussed on a number of levels, systems, interfaces, and issues, which all relate in greater or lesser degree to either the central research aim or to the secondary research objective, *e.g.* the improvement in New Zealand of the correspondence between education and work. The main emphasis has been on vocational training, which means that the predominant focus was placed on levels 1-4 of the New Zealand National Qualifications Framework (NQF), *i.e.* the national certificates, and the German apprenticeship system.

ISSUES: ERRORS AND CONSTRAINTS

The data and analyses which follow in the subsequent chapters of this thesis will demonstrate that comparative education research is inevitably fraught with difficulties, especially if one investigates training systems in countries so diverse as New Zealand and Germany. Noah (1988) points out some of the problems in comparative method: the costs and the difficulty of collecting data from overseas sources; their potential lack of comparability; uncertainties with regard to the validity and reliability of the data obtained; problems relating to the construction of valid scales; and, the application of ethnocentric bias.

Regarding Noah's first point of concern, there were some considerable difficulties in obtaining a reply from a number of potential respondents in Germany when contacting them from New Zealand. Access not only to people but also to resources was at times difficult, which applied to a lesser extent to research and interviews conducted in New Zealand. A factor of concern throughout my research was the limited time that was available for overseas fieldwork, as well as the problem of access to information and publications in Germany from New Zealand; in other words, the problem of having to cope with the tyranny of distance.

While Noah's first and third points are likely to have had some constraining influence on the research design and the research process, their effect will remain unmeasurable. Regarding Noah's concern of a lack of useful and reliable comparative data, I am convinced that despite the existence of obvious 'national differences', sufficient commonalities between any two countries in terms of education policy aims and direction, training provision, delivery methods, and so on, will exist to conduct valuable comparative research that is based on standards of validity and reliability acceptable to the international academic community.

Since scales have not been used in this research, the last of Noah's points, ethnocentric bias, is now addressed briefly. In 1989, I migrated to New Zealand, which was one year prior to the establishment of NZQA, and the same year the "Learning for Life" decisions were announced by the New Zealand government. I was neither familiar with the purpose nor the rationale for the economic and educational reforms; and was employed with NZQA at its inception date on 1 July 1990.

Clearly, one advantage of being a relative newcomer to New Zealand and its education sector was that I could do my research rather free of professional and personal biases. On the other hand, because of a

certain lack of knowledge and understanding of the historical development of educational issues and their political context, a knowledge base and a certain appreciation of it had to be developed during the research process. Furthermore, as both English and German are foreign languages to me, a certain neutrality in that respect was ensured. A further constraint was the fact that my research was conducted in addition to full-time employment.

Because this research was completed before the tertiary education reforms were fully implemented, it is unavoidable that some of the findings presented here will be inaccurate and irrelevant, since they have been overtaken in real life by ongoing policy and implementation developments. It is my belief that the research findings have unquestionably been influenced, to whatever degree, by the aforementioned errors and constraints. Full responsibility therefore for this work is mine, and mine alone.

THEORETICAL PERSPECTIVES

In this section, a number of theoretical perspectives relevant to the principal aim of the thesis (see page one) will be discussed. These perspectives are considered to be complementary, in that they inform both the discussion and analysis of the key elements of the education and training, and qualifications reforms in New Zealand and Germany. The human capital approach, currently embraced in both nations, forms the starting point and is appraised critically which is followed by Marxist, neo- and non-Marxist theories, all of which aim to contribute to the discussion by providing what I would call a 'connective' perspective.

The application of such a broad theoretical perspective allowed me to examine a selected number of topics and issues deemed relevant for description and analysis of the research questions and inform the direction

and the 'intrinsic' logic of the thesis within the context of the overall aim. And it is with regard to the NQF in particular, that issues such as the role of the State in a choice-dominated education and training market and 'vocationalisation' are being addressed, as is, *inter alia*, the meaning and purpose of the key VET concept of 'competence' in reforming education and training.

A recent OECD publication reported that international economic competitiveness is to be maintained through two related policy measures, *viz.* in facilitating adjustment, a government's intervention in the macro-economic environment requires the consensus of the social partners (3), and the workforce needs to acquire both the right knowledge and skills and a general level of education (OECD, 1989). Both the economy and education are subject to changes which make them more interdependent as a consequence of converging functions. 'The human factor', *i.e.* the qualifications and the skills of the workers and employees, is thus becoming a critical factor in the economy.

In addition, technologically advanced societies require research capacity and technologically literate consumers. At the same time, a trend is discernible that persistent long-term unemployment requires education to prepare not just for working life. And, as a last point, education and schooling are becoming less synonymous as education and training are increasingly being delivered by non-institutional providers and in the form of labour market programmes (*ibid*, pp.18-9).

The above statements succinctly describe some of the major problems faced by advanced capitalist countries today, which includes New Zealand and Germany, both of which are OECD countries. Although a major concern of the State is to achieve capital accumulation, this is matched and supported by its need to continuously legitimate itself politically for its actions, or lack of them. The theoretical position taken in

this thesis derives in the main from neo-Marxist conflict theories which repudiate the economic determinism of functionalist human capital theory. Moreover, theories of the State and the labour process will be presented for the purpose of providing a theoretical framework within which the linkages between the economy, education and the State can be discussed.

Hurn (1985) asserts that functionalists tend to claim that schooling fulfils an important role in modern society. In their view, it performs the functions of representing an efficient and rational way of sorting and selecting talented people, resulting in the most able and motivated achieving the highest status positions. Secondly, functionalists see schools as inculcating cognitive skills and norms essential to an adult's performance in a society which becomes more and more knowledge-intensive for economic growth. Moreover, proponents of this school of thought desire a meritocratic society, which is a society in which ability and effort are considered as more important than privilege and inherited status. Theirs is also the view that modern society requires more highly skilled people than ever before in history.

Human capital theory vindicates education as an investment because an increase of an individual's human capital, knowledge and expertise will pay off in terms of increased future earnings (Becker, 1964). This theory was developed by economists in the 1960s and has dominated the field of economics of education ever since. It is seen as the 'most influential economic theory of western education' (Fitzsimons and Peters, 1994:251) and it has been used by neo-liberal governments around the world as a cornerstone of monetarist policies, treating education as a commodity (Broady, 1981). Human capital theorists are concerned, consequently, with the rate of return to investment in education and training. They claim that it is possible to calculate the 'profitability' of the

investment in human capital by using cost-benefit analysis techniques which traditionally have been applied to physical capital. This perspective thus views investment in human capital as beneficial to the individual and society alike. An individual who takes part in education or vocational training is expected to increase job prospects and lifetime earnings (Woodhall, 1987).

Critics of the human capital perspective have pointed out that it is an employers' method for screening suitable individuals for available positions, which has been coined the 'screening' or 'filtering' hypothesis in the literature. However, the suggestion that education or training leads to both increased productivity and lifetime earnings ignores the existence of other factors on earnings, such as innate ability (*ibid*, p.23). Accordingly, the human capital theory can be criticised for the fact that it conveniently ignores the cultural and historical factors in human activity, and simply reduces human behaviour to the economic self-interest of individuals in a free market system. The social relations which are an intrinsic part of capital accumulation are thus not acknowledged by this theoretical perspective and neither are the structural factors affecting individual attainment, such as the economic, political and social systems.

Research seems to suggest that it is unclear whether a direct relationship between education/human investment and improvements in occupation or income exists at all, and if so, to what extent (Hurn, 1985; Jencks *et al.*, 1972, quoted in Fägerlind, 1983:18; Raggatt, 1993). Maglen (1990) asserts that neither time-series nor cross-country studies lend much support to the contention that increased education promotes the growth of labour productivity. But while the limitations of the human capital theory may be clear, the fact remains that neo-liberal governments continue to set their economic and social policies in accordance with human capital formation principles and its underpinning 'thin social theory'. For this

particular reason the role of the State in education needs to be examined, which will occur in a later section.

In reaction to the prevailing theory of human capital in the 1960s, the Prokla School (4) in Germany developed a Marxist critique which claimed that the course of capital accumulation determined the nature and the direction of the modern interventionist state, and which influenced also the development of education (Altvater, 1972, cited in Broady, 1981). The ideological manifestation of the State as an independent entity, Altvater (*ibid*) avows, is economically determined. In his view, the aim of the State is to function as a guarantor of the reproduction of collective capital for which education and educational policy are crucial. And he notes that the State has become increasingly interventionist since the 1930s by taking on more and more functions (*ibid*, pp.153-4).

In analysing the political economy of education, the Prokla School came to the belief that the education and the qualification of the labour force are to be regarded as necessary for the reproduction of collective capital while, on the other hand, public educational expenditure is deliberately kept low (*ibid*, p.154) (5). The School's theoretical contribution, it can be argued, was instrumental in drawing attention to the political and economic limitations of State actions in a field such as educational reforms.

However, the Prokla School's work can be criticised for its oversimplistic portrayal of the relationship between state educational policy and capital accumulation. Offe (1984), for example, has stated that the State's prime objective is its need for legitimacy, which assumes importance over capital accumulation. Baethge (1972, cited in Broady, 1981) argues that the School's theoretical deficits are evident since educational policy formation, and the role of the State in it, are presented merely as a given; no attention has been paid to the nature of these

processes, which occur through conflicts and contradictions. He further posits that 'the qualification requirements have to do not only with production, but [...] also with the *reproduction* of the labour force' (*ibid*, p.160) (emphasis added). Of particular interest here is Baethge's view that the structure of the workplace can be changed without this requiring a change in the structure of qualifications (*ibid*, p.161).

Neo-Marxist conflict theorists, on the other hand, have formulated theoretical frameworks which appear to adequately and appropriately take into account modern social relations in advanced capitalism. In general terms, their convictions offset the economic approach of human capital. Whereas some of its protagonists, for example, focus on the formation of ideology (Apple, 1989; Althusser, 1971), others emphasise the social relations of capitalist production (Bowles and Gintis, 1976). Intentionally, an amalgam of 'related' theories has been chosen here, so as to both combine their mutual strengths and, at the same time, avoid taking a unilateral viewpoint by adhering strictly to one theory. This will be complemented by a brief discussion of Collins's non-Marxist conflict theory.

Conflict theories are generally supportive of the idea that it is not quite clear whether the teaching of cognitive skills at schools explain the relationship between earnings, schooling, and occupational status adequately (Hurn, 1985). The linkages between schools and the demands of the élites tend to be emphasised, rather than those which exist in the wider society. Schools, therefore, are said to reinforce existing inequalities, and have an interest in the teaching of compliance rather than cognitive skills. Consequently, conflict theorists claim, there is an unequal struggle for power and status in society, which always will be won by élites,

because they possess superior resources as well as control over the means of communication (*ibid*).

Bowles and Gintis (1976), in their 'correspondence thesis', have claimed that schools serve the interests of capitalist society, on the basis of which they reject the meritocratic hypothesis. Educational meritocracy, in their view, is 'symbolic' as 'the educational system legitimates economic inequality by providing an open, objective, and ostensibly meritocratic mechanism for assigning individuals to unequal positions' (*ibid*, p.103), which reinforces class inequalities in society.

In their view, schools work towards convincing people that selection is based on merits and that people in high-status positions deserve their positions given their efforts and talents. Schools and the schooling process are therefore deemed to be critical measures for maintaining the legitimacy of the capitalist order. Educational change, Bowles and Gintis (*ibid*) suggest, occurs mainly because in a changing economic order the élites require new values and skills. In a similar vein, they contend that the relation between the economy and education must be exposed through the effect of schooling on 'consciousness, interpersonal behaviour and the personality it fosters and reinforces in students' (*ibid*, p.9).

This 'correspondence thesis' has been criticised for the fact that it grants little autonomy to the educational system and, additionally, it fails to address the nature of the class struggle in the educational apparatus (Carnoy, 1982; Demaine, 1981). A major problem perceived with the correspondence theory is that education is regarded dogmatically as the supplier of educated human resources.

Hussain's (1976) distinction between two categories of unemployment, *viz.* aggregate and structural, appears to be useful in this context of the relationship between education and work. The former refers

to a situation where the total number of job vacancies is less than the total number of unemployed. The reduction of unemployment here will only occur when more jobs are created and the education system has no role to play in this. In the latter category, a lack of correspondence between labour supply and demand exists and is thought to have been caused by a highly differentiated labour market and regional differences. Education may now play a role in alleviating structural unemployment through the teaching of employer-demanded knowledge and skills.

Hussain (*ibid*, p.427) cautions that the 'efficacy of institutional providers depends on the range of vocational training provided in them and the extent to which competence for occupations is defined in terms of educational occupations'. Further limitations exist, he states, such as student choice, institutional course numbers not meeting labour market requirements, and the reluctance of workers to move to other regions.

In developing his argument further, the valuable point is made that education should not be conceived as a subordinate part of the economic system *per se* but must be viewed as existing in relation to both the economic and the social system. Hussain also asserts that education policy is part of social policy, and hence subject to both political control and political 'determination' (*ibid*).

In developing a non-Marxist conflict theory, Collins (1979) particularly focussed on the value and the purpose of educational credentials in modern capitalist societies. His ideas may be interpreted, by those sympathetic to it, as a challenge to one of the central tenets of the human capital theory - in that modern society needs workers with more and higher skill levels and qualifications (OECD, 1994d).

The key notion underpinning his theory is that there is a trend for unnecessary educational credentials to determine access to desirable jobs. He claims adamantly that employers and providers have vested interests

in steadily raising the levels of educational credentials, while asserting that the employer's conception of the skill requirements of most jobs tends to be rather imprecise (*ibid*, p.28). Hence, the 'myth of technocracy', which holds that jobs in a modern society are becoming so complex that only people with high levels of cognitive skills are able to perform them, has been proven false by Collins's own empirical research (*ibid*, pp.13,19).

Collins believes that most jobs are not very complex, and that the required skills can usually be learned on the job. Schools, he maintains, ineffectively produce cognitive skills in their students. The content of much of education is more concerned with the teaching of common standards of sociability and propriety rather than with instrumental and cognitive skills (*ibid*, p.19). He uses the term 'cultural currency' to emphasise that it is the quantity of schooling attested to by diplomas, degrees, and certificates, that is more important than what is learned (*ibid*, pp.60-62) while also stating that the inflation of educational credentials is wasteful and irrational, which in the long run may become unworkable.

Spenner (1985:132) agrees that '...schooling and training may have more to do with getting jobs and launching careers than with performing in work roles once there'. Brown and Lauder (1992), on the other hand, affirm that the relation between educational credentials and productivity is unclear on two accounts. Firstly, they refer to and endorse Murphy's (1988) idea that 'the predominant effect of credentials has been that of exclusion, domination, and inequality'. They believe also that there is a substantial under-utilisation of education in the workplace (Berg, 1970).

Secondly, Brown and Lauder (1992) are convinced that educational credentials are increasingly being used by the employers to regulate the demand for positions they have available. The relation between education and occupational destination, yet again, is regarded as problematic because factors such as ascription, and social and geographical

background, co-determine in conjunction with education a person's destination in the labour market (cf. OECD, 1994d).

Collins (1979:91), in The Credential Society, refers to Turner's (1960) useful notions of sponsored and contested mobility. The former refers to societies with differentiated secondary streams in which the remainder of a student's career is set once a branching point has been reached after which a student is sponsored through successive stages without much attrition. Contested mobility, on the other hand, occurs in systems where there is a lack of branching points which allows for a relatively easy transfer between the different sorts of programmes and accommodate students re-entering the system after dropping out. In this system there are no fixed end points.

Dore (1976) claims that the credentialling process may have detrimental effects at a time of increased educational expansion, in that students focus on becoming certificated for job purposes without necessarily wanting to master the curriculum, which is distinct from self-motivated mastery of knowledge and skills. It is necessary to state that although educational qualifications are used for selection into the occupations by employers, the arrival at an occupational destination, and the volume and the terms of employment, are determined outside the educational system (Hussain, 1976).

Consequently, the extent to which qualifications are being used should not be overestimated. Qualifications for the higher occupational levels, Watts (1985) asserts, are often regarded as an insufficient selection device; while at the lower levels, they essentially indicate an individual's behavioural traits and normative qualities and, hence, do not necessarily constitute a signal of cognitive abilities for employers (Burrell, 1993).

It can be said that the above selected theories of schooling discredit the main assumptions of the functionalist human capital theory by either

emphasising the social relations inherent in human activities, such as capital accumulation, or questioning the nature and the purpose of the schooling process.

In order to advance the theoretical position of this thesis, the changing nature of capitalist societies, and the links between labour markets, new technologies, education and vocational training will need to be addressed. A major concern many national governments are currently facing, is whether the existing systems of education and training will be able to meet the challenges of increasing international competition and the introduction of new technologies in a demographically changing environment. And although many OECD countries have experienced a long period of economic growth, it occurred with persistent very high levels of unemployment (Bengtsson, 1993).

Bengtsson (*ibid*, p.136) provides three explanations for the occurrence of these phenomena: first, the emergence of a 'jobless growth society' as the economy is unable to create full employment in the traditional sense; second, a belief that increased deregulation and free market forces will solve the problems over time; and third, many (of the OECD) countries are moving towards knowledge-intensive economies (Drucker, 1993), which is characterised by a rapid growth of the service sector. In all these explanations, the lack of human resource development - at both the micro and macro level - is identified as a prohibitive factor for economic and employment growth (Bengtson, 1993; OECD, 1989).

Consequently, education and training systems have been accorded crucial importance in providing parallel support to economic and technological changes, which in many countries has recently resulted in educational reforms in an effort to improve the responsiveness of education and training.

In the last two decades or so, it has become clear that a new economic and social order has arrived, which has been termed by some as a post-capitalist society (Drucker, 1993), a post-industrial society (Bell, 1973) by others, as well as post-Fordism (Hickox and Moore, 1992). Before analysing its characteristics, plus its anticipated impact on the future structure and the provision of education and vocational training, an account of its historical development is presented. This is based on the concept of 'the three waves of socio-historical development of state education' (Brown and Lauder, 1992).

The 'first wave' took place in the late nineteenth century under the conditions of primitive capitalism, and was typified by the rise of mass schooling of the working classes (Brown, 1990). Social positions and status were ascribed to individuals according to their place in the social strata. Elementary education was deemed to be for the poor and offered the working classes minimal schooling for their future occupational positions, while secondary education was the uncontested domain of the middle and upper classes and its function was to reproduce the social and economic élite (*ibid*, p.68).

The second period of development (the 'second wave') commenced with the introduction of the economies of scale, which led to the creation of mass markets and the creation of stock markets in which bureaucracy became the most efficient way to produce predictable outcomes. Production was now controlled through the processes of rationalisation, hierarchical work organisation, and the breaking down of complex tasks into their simplest components. Taylor, the first management theorist to recognise the importance of control in mass production, promoted the separation of the manual and mental activities in the labour process in his 'scientific management' approach (Wood, 1982).

Braverman (1974) developed a theoretical critique of capitalist labour processes on the basis of Taylor's ideas. His 'deskilling thesis' suggests that the remainder of the twentieth century will witness a long-term trend for jobs to become mechanical, routinised, while lacking any personal, or professional, challenge. Taylorism, Braverman (1974:113-9) claims, consists of three 'principles': first, the skills of workers become dissociated from the labour process; second, the separation of execution from conception and, third, the managerial 'use of this monopoly over knowledge to control each step of the labor process and its mode of execution'. In his view, technological change, work reorganisation, and the deskilling of jobs serve to control labour, which results in both a polarised labour force and occupational structure (Spenner, 1985). His theory has been criticised for failing to recognise the workers' active participation in the labour process and the social construction of skill, and also the absence of proof that universal deskilling had taken place in industrial capitalism (Grint, 1991; Wood, 1987; Brown, 1995). In the 'second wave', ascription, as an organisational principle of education, is superseded by a system based on individual merits (Brown, 1990).

According to Brown (1991), a third wave of the socio-historical development of state education can be discerned, which has occurred in a number of countries, *e.g.* Australia, New Zealand, the United States of America, and Britain. In this period national economies changed dramatically due to the improvement of telecommunications and the liberalisation of international trade which led to intensified global economic competition. Education is now seen to be vital for economic survival, requiring higher levels of education and flexible workers.

The rapid development of technology requires workers to deal with abstract and symbolic knowledge systems which is a radical departure from a strict reliance on 'tools-only' in previous periods (OECD, 1993c;

Reich, 1992; Wirth, 1993). In accordance with these changes, occupational classifications and the contents of jobs have changed too, as a result of traditional demarcations becoming increasingly blurred. The importance of workers being able to cross job and sectoral boundaries is being stressed increasingly in public policy. The modularisation of curricula and national certification of performance standards are but two examples of responses to these trends (Drake, 1988).

Although an increased accentuation on enhancing worker mobility by national governments and industries may enhance state legitimacy and improve business profitability, it does not necessarily inculcate worker empowerment. According to Cohen (1984), the 'hidden agenda of the new vocationalism' is primarily about the infusion of social discipline which will result in a self-disciplined reserve army of youth labour. 'Self-fulfilment', as a liberal educational idea, is being promoted and cross-applied pragmatically in the era of 'new vocationalism', or post-Fordism, to mean increased opportunities for 'flexible' and 'accessible' learning and working for those in pursuit, leading to empowerment, multi-skilling, *etc.* (*ibid*, p.107).

The conditions and the objectives, however, are set by those in power to serve pre-eminently utilitarian purposes. And it is in practice that 'transferable skilling' may mean for qualified workers 'deskilling' while ascendancy to better opportunities may be dependent on one's gender, class, or culture (Ainsley and Corbett, 1994). Moreover, upskilling may be applicable and available only to those regularly employed in the 'core' workforce, while those irregularly employed in the 'outer circles' engage in routinised work (*ibid*, p.369; Brown, 1995).

Both consumer choice and flexible production are deemed core characteristics of post-Fordism and these are gradually spreading from the manufacturing sector into other sectors of the economy, such as the public

services (Marsden, 1994). The important point to make here is that the emerging post-Fordist work organisational and production environment is neither a universal nor a uniform trend (Hickox and Moore, 1992; Spenner, 1985), as there are differences between and within countries (and between and within industries) in the same way that non-universality applies to Fordism (Hyman, 1988).

The post-Fordistic (or post-Taylorist) period requires new correspondences and alliances between education and the economy, and new attitudes of people towards learning and production (6). Post-Fordism essentially constitutes a move away from a mass production-dominated manufacturing and work organisational model towards a 'task-integrated paradigm'. While Kern and Schumann (1984) have coined this trend the 'reprofessionalisation of work', others refer to it as a 'return to craft production methods' (Piore and Sabel, 1984) or 'anthropocentric production systems' (Brodner, 1985; Wobbe, 1991). Thus Taylor's restrictive concept about the use of human labour is giving way to 'a greater willingness now to make use of the flexibility, skills, and (tacit) knowledge of the workers inside the labour process' (Dankbaar, 1988:27).

Evidence of an increasing emphasis on multi-skilling, customer-oriented skills, entrepreneurial skills, problem-solving skills and transferable skills in the economy is becoming more and more abundant while, on the other hand, low-skilled and unskilled jobs are gradually disappearing (Bengtsson, 1993). As a consequence, skill structures are changing which, exacerbated by rapidly changing information technologies, cause occupational structures to be modified. Multi-skilling and flexibility as key concepts in the post-Fordistic vision are a response of enterprises to produce high-quality products and services while shortening

their life-cycles in order to survive in an intensified globally competitive environment.

The 'upgrading thesis', the antithesis of Braverman's downgrading argument, is representative of post-Fordism. In this vision, Avis (1993) notes, the earlier notions of human capital become embodied. The upgrading argument claims that due to technological advancement increased skill levels are called for, and both school attainment levels and vocational preparation will increase dramatically (Spenner, 1985). One of the key principles of this paradigm is that a refreshed alignment between education and training is required; *viz.* minimal general education coupled with effective on-the-job training is believed to bring about maximum individual and collective competence (Bengtsson, 1993).

Consequently, combinations of school and work-based learning, or 'alternance', are believed to assume increased importance as a policy measure to link education, training and employment (OECD, 1994c), of which apprenticeship is one example. It is questionable whether the arrangements and structures underpinning traditional apprenticeship are able to maintain their relevance and currency in modern society (Geissler, 1991; Kutscha, 1992a). What appears to be clear is that on-the-job training will increase in volume as well as in importance for both young workers and adults (OECD, 1989) and enterprises are increasingly becoming places of learning as well as places of production (*cf.* Dehnbostel *et al.*, 1992).

The notion that work itself, given the right pedagogical conditions, may be considered a form of learning seems to have taken root (Bader, 1992). In general terms, political support for increased workplace training derives from the State's intention to have its responsibilities reduced in this area by encouraging not only a free market approach to education (King, 1993:206), but also by actively seeking to create a 'training and education market'.

Streeck (1989:99), in introducing the notion of 'the limits of functional differentiation', puts the accent on the problems associated with the provision of education and training in two different places of learning. In a similar fashion, Foster (1965, cited in Fägerlind and Saha, 1983:82) points out that there are limitations as to the extent the State should provide public education, while conceding that institution-based vocational education is also regarded an inadequate solution in matching education with occupational needs.

Streeck (1989:92-3) maintains that 'market failure in skill formation is endemic and inevitable', for which there are two reasons: firstly, a young person's skill attainment and identity formation are inextricably linked, and for this reason learning cannot be conceived in terms of a rational long-term investment; and secondly, most enterprises tend to invest less in training than they should for their own good. He also contends that market-led training systems are liable to ignore the importance of social and cultural factors in training, since this is likely to have a negative influence on industry's utilitarian approach. Therefore, if training is left to the market, its quality will differ enormously between enterprises.

It follows, in his view, that there is an apparent need for a government regulatory framework to ensure mechanisms are operating which will see the enterprises' utilitarian rationality constrained, while it also needs to make sure that enterprises fulfil their duty as a cultural institution (*ibid*, p.100). Lane (1987:60) stresses the important role of social and cultural aspects in the capitalist labour process too, and claims that 'vocational education is not merely [to be] regarded as a technical phenomenon but is seen to have multiple social consequences with ramifications all through society'. Weiermair (1981:181-2), on the other hand, makes a useful distinction between skill-, information-, and social dimensions in the process of human capital formation. The latter category,

which is also labelled as 'social capital formation', comprises social values and skills relevant and important to the employment sector.

Whilst Hickox and Moore (1992) claim little evidence is available to support the existence of any 'correspondence' between education and the economy in the Fordist period, it is their contention that in post-Fordism a type of limited correspondence may occur for the first time in capitalist development. This, they believe, can be achieved through a policy prescription of 'vocationalisation', which generally is taken to mean here '[curriculum] change in a practical or vocational direction' to ensure the occurrence of a higher degree of relevance of education and training to employers' needs.

Moreover, vocationalisation is also seen to constitute a political response to economic recession (Lauglo and Lillis, 1988). Field (1991), in criticising the competency movement's aims to improve the alignment between education and the labour market, suggests that the move [in the United Kingdom] towards competency-based qualifications not only endeavours to achieve desirable economic goals, but also ensures that learning is subordinated to and influenced by work activities (*ibid*, p.42).

In a response to the persistent nature of contemporary economic crises, national governments tend to select policy measures which include all or some of those mentioned in a recent OECD (1994d:8-9) report, *e.g.* the establishment of educational pathways (which refers to the aim of linking the different sectors for enhancing student learning mobility), integrated learning (which refers to the policy aim to link 'the academic' with 'the vocational'), and the promotion of social partnerships so as to ensure that effective linkages between all the key groups involved exist, and institutional co-ordination of private sector agencies and the government is secured.

However, the issue of whether one can afford in this day and age to keep thinking in terms of dichotomies, such as education and training, or theory and practice, appears to have already been overtaken by contemporary economic and social realities (OECD, 1989) (see chapter 11). The most important issue that ought to be addressed is: where and how should the twain meet? A logical starting point for doing this is an examination of the concept of knowledge and its application value. Dewey (Hyland, 1993:94) believed that 'knowledge [...] is neither given nor absolute but constructed by humans out of their "experience"'. Vocationalism, he claims, is

neither narrowly focused nor occupationally-specific,
but allows for a genuine discovery of personal aptitudes
so that proper choice of a specialised pursuit in a later
life may be indicated (*ibid*, p.95).

It is Dewey's linking of vocational preparation with effective citizenship that is particularly attractive, not in the least because one can relate it easily to the course of post-Fordism. Dewey, a proponent of a liberal vocational education, rejects both Platonist dualistic rigidities and the economic determinism of vocationalists. A similar view has been advocated in Germany by Kerschensteiner who avows that in addition to trade efficiency, moral and civic goals have to be an integral part of vocational education (Lauglo and Lillis, 1988; *cf.* Simons, 1966).

In order to develop this thesis further, the notion of 'competence' requires exploration. However, it may be clear from the outset that there is no consistency regarding the definition of this concept. Various concepts of competence exist, which have been refined over time for the purpose of gaining improved theoretical accuracy and for pragmatic use in those countries applying them. Hence the development and antecedents of a particular type of competence concept must be understood in relation to

both the international debates surrounding the concept and its application in a country-specific setting.

What seems to be clear, however, is that the notion of competence is currently the dominant paradigm in vocational skills training (Jones and Moore, 1993), and has been developed as an 'umbrella' concept to incorporate knowledge, skills, attitudes and experience (Silver, 1990). At present, the 'competence movement' in VET is predominantly an Anglo-Saxon phenomenon, which has its origins in the United States of America in industry, military training, and social work, and was developed too as an alternative scheme for teacher training (Jones and Moore, 1993).

Three major perspectives on 'competence' exist. In the behaviourist model, competence comprises discrete behaviours associated with the completion of atomised tasks. Competency equates to task, and evidence of possession of competency is derived from direct observation. This reductionist approach has been criticised for ignoring the underlying attributes, *i.e.* group processes and their effect on performance, the role of professional judgement in performance as well as for its atheoretical position (Gonczi, 1993a; Ashworth and Saxton, 1990).

In the second model, general attributes are believed to be essential to a practitioner's effective performance. Thus competencies are general attributes, including knowledge or critical thinking, which provide the basis for transferable, or more specific attributes to be applied across situations. The main problems with this approach is that we do not know whether generic competencies actually exist, and this model fails to contextualise the application of those attributes (Gonczi, 1993a).

The holistic approach, as advocated by Gonczi, advances the above models considerably. He postulates that competence is relational; and in his approach professional judgement is inherent. The complexity of interrelating attributes, such as knowledge, attitudes and skills, are not

only acknowledged by Gonczi, but also used for understanding human activity. Moreover, the application of a wide variety of assessment techniques is allowed in his model (*ibid*). Undoubtedly, the advantage of this paradigm is the contextualisation of the various attributes, and their dynamic intertwining, which makes it a theoretically more sophisticated model.

In borrowing Gonczi's (1993b:9) definition, competence is defined in this work

to incorporate the attributes of knowledge, skills, attitudes and understanding, and a competent professional (or worker at any occupational level) is conceived as having the attributes necessary for job performance to the appropriate standard.

Quite recently, concepts have been developed in a number of non-Anglo-Saxon countries, which appear to be similar in substance and purpose to those advocated in countries such as the United Kingdom and Australia. In Germany, the notion of '*berufliche Handlungskompetenz*' (occupational performance competence) seems at face value comparable to the definition of a 'competent' worker employed by Gonczi.

Upon examination of international policy developments in vocational education and training, two diverging though complementary trends can be discerned. In some countries (7) a shift towards competency-based training has or currently is taking place; a move which emphasises the specification of particular knowledge and skills and their application to the performance standards required in the workplace. While in the second, parallel development, other countries (8) are regrouping vocational specialisations into new qualifications (King, 1993).

It is envisaged that the concept of 'competence' will gain predominance over the concept of 'qualification' in the not too distant

future, because it is able to attest more accurately to what an individual actually can do (Grootings, 1994; Bader and Ruhland, 1993). The OECD (1994:59) predicts that the outcomes and objectives in vocational and technical education and training 'may increasingly be defined in terms of competences rather than occupations'. In sum, the future appears to belong to the '*homo competens*'.

The strengths of the competence-based approach, as is claimed by proponents, are numerous and important. A feature of importance is that 'competencies' are being specified and promulgated and used in professional, and other, work, which gives the advantage of enhanced transparency and clarity of requirements. It may be seen, as is the case in Australia, to be the best way of implementing the ideas behind workplace reform and award restructuring (Gonzci, 1993a). It also has the potential to recognise current competence, and to remove barriers to access to learning. Moreover, it is claimed that this approach will foster flexible learning and assessment, while ensuring portability of qualifications, nationally and internationally.

A key characteristic of the competency-based training and assessment regime is that students have increased choice over when they wish to be tested against stipulated competency standards. The argument is that a coherent, transparent all-encompassing system of outcome-based qualifications *may* help to maintain (or regain?) public confidence in the purpose and provision of national education and training; particularly if greater relevance to industry's needs can be attributed to improved vocational education and training structures and policies. Lastly, in drawing attention to an important issue mentioned before

competency approaches have the potential to break the long standing and destructive dichotomy between theory and practice which has characterised educational thinking for so many years, This will help to break down the unfortunate dichotomy between vocational and

general education which has led to the distinctions between manual/mental, body/mind, theory/practice, applied/pure *et cetera* characteristic of some western societies (Gonczi, 1993a).

Competence-based approaches to education and training have been the subject of substantial criticism. So too has the emphasis on measurable and observable aspects of human behaviour, since some believe that it will not necessarily contribute to the attainment of the wider vocational goals, because only the instrumental value of learning is stressed (Hyland, 1993). Jones and Moore (1993:391) point out that 'competency has no content in its own right', but is merely a device for regulating content located in other bodies of expertise. A paradigm shift to regulated outputs (standards, performance criteria) from inputs (knowledge and cultural attributes), they claim, will see a parallel move from a cultural to a technical mode of control over expertise, and will cause the importance of culture and socialisation in occupational training to erode (*ibid*).

Field (1991) interestingly describes competency-based assessment as the new Fordism of the education system since, in his view, it is a method of analysis and organisation which may result in narrowing the scope of initiative and field of responsibility of each individual in his or her work. Given this context, a contradiction appears to exist between those concepts which espouse labour mobility, such as generic and transferable skills - which are considered central to the post-Fordistic vision - and a commitment to capitalist modernisation, as inherent in post-Fordism (Avis, 1993). Transferable skills, Avis (*ibid*, p.11) claims, cannot serve emancipatory or other ends, because they become 'free-floating possibilities' without a social context.

The important point to make is that 'competence', like 'transferable skills', is a construct; it is not something that one can observe directly (Wolf, 1990). Competence and each of its underpinning components -

knowledge, attitudes, and understanding - are considered context-dependent. Hence, cross-situational inference of competence is being perceived as problematic. Wolf (*ibid*; 1995b) asserts that knowledge and understanding are constructs to be inferred from observable behaviour. In her view, both components cannot be divorced from performance, and they are often best learned 'in use'. On the subject of inferring from performance underpinning knowledge and understanding, she cautions that this may be drawn from alternative or incorrect schema (*ibid*, p.33).

Having just said that competence is a construct, the question to be answered is: whose? and for what purpose? Murphy (1990, cited in W.Hall, 1994:5) indicates that the structural efficiency principle emphasised the need for a competency-based training and assessment system which, in general terms, aligns with the tenets of the human capital perspective. The competency approach clearly has wide-spread implications that go beyond curricular issues *per se*, as it permeates the domains of industrial relations, vocational education and training arrangements and administration, and influences the education-economy correspondence as well.

It remains to be seen whether outcomes-based training will improve learning. In Jackson's (1993:114) view, 'the competency paradigm has not and probably will not improve learning in most of the educational contexts where it has been applied', but it 'is significant in today's policy climate ... because it provides an infrastructure for determining how and by whom educational goals and standards will be set'. Thus, importantly, competency-based training in her view is not an educational matter at all, but rather a management and a political tool (*cf.* Ashworth and Saxton, 1990).

In order to understand and appreciate the political and economic rationale for educational reforms, the role of the State needs to be

examined. Undoubtedly, economic crises are linked to the timing of major educational reforms (Ginsberg *et al.*, 1990) and since the State is the main provider and organiser of education, there is a logic that 'the fortunes of education are bound up with the fortunes of the State as a whole' (Hargreaves, 1989:44). The important point here is that political, economical and cultural forces all have and continue to have an impact on education and training.

Educational reform can be described as a comprehensive change in the structure of an education and training system, which require fundamental changes in education policies and, in turn, may lead to major changes in one, or all, of the following areas in education: the national allocation of resources; the allocation of resources within the existing educational system to other levels of the system; the aims of the curricula and their content; and the allocation of responsibilities for education and training; the percentage of students not from and from disadvantaged social strata that complete different levels of the educational system (Fägerlind and Saha, 1983:139) (9).

In assessing educational reforms, a fundamental issue is whether reforms deliver their promises, or whether the benefits are more apparent than real (Jackson, 1993). In the view of Broady (1981:181), 'it is practically the rule that educational reforms fail, that courses of education become distorted in directions that were not intended ...'. Others indicate the empty rhetoric of educational reform, arguing that its purpose is to legitimate those with political power rather than change education (Campbell, 1982, quoted in Ginsberg *et al.*, 1990; Weiss, 1993; Weiler, 1990).

Against this it can be argued that the perceptions people have on the outcome of educational reform may and will differ substantially. Some, for example, may gauge reform as representing constructive change, while others may perceive it as rather symbolic or even regressive (Ginsberg,

1990). Lawton (1993) notes that the only educational reform critique that has proven to be successful to date, appears to be the one that claims that central agencies have a hold on educational goals. In this thesis, reform in education is not necessarily regarded as constituting a change for the better (*cf.* Ginsberg *et al.*, 1990).

In the subsequent section the role of the State will be explored in some more detail. According to Dale, who aptly advances the restrictive structural-functionalist notion of the State being a neutral force in polity and society, the State is understood to be

[...] not a monolith, or the same as government, or merely the government's (or anybody else's) executive committee. It is a set of publicly financed institutions, neither separately nor collectively necessarily in harmony, confronted by certain basic problems deriving from its relationship with capitalism..., with one branch, the government having responsibility for ensuring the continuing prominence of these problems on its agenda (Dale, 1989, quoted in Apple, 1989:13).

State institutions operate at different levels - national, regional and local. Those institutions on the periphery are likely to enjoy a lesser degree of freedom than the central agencies. The importance of regional and local institutions derives from their influencing the implementation of policy formulated by those central bodies. State intervention in advanced capitalism has tended to increase the powers of the latter institutions but across nations considerable differences exist as to how the State is made up and what its functions are (Ham and Hill, 1985).

In theorising about the State, Dale (1989) affirms that it is more than a reproducer of the capitalist order, *i.e.* it is an active entity which carries out functions that are intrinsically mutually contradictory, and which cannot be brought back to economic objectives only. The State itself is

perceived as an arena of conflict, a perspective which produces a much-welcomed degree of sophistication into the previously functionalist-dominated academic discussions of the State. Besides the aforementioned continuation problem, the capitalist state is also constantly in pursuit of trying to solve the crises of capital accumulation and democratic legitimation (*ibid*; Offe, 1975).

The government may be considered as the most important part of the State, but is not all of it, as the former is subject to potential change due to regular elections. Dale (1989:53) contends that 'governments attempt to represent short-term interests of the temporarily dominant coalition of forces within a social formation'. In this context, the relationship between the institutions of the government and public policy needs to be characterised.

Firstly, government lends legitimacy to policies as they are regarded as legal obligations; secondly, government policies involve 'universality', because of their across-society applicability; and lastly, government monopolises coercion in society. Dye (1978) believes that these elements are reference points which encourage groups and individuals in the pursuit of having their interests 'converted' into policy. There are different ways to conceive of public policy and two approaches are incrementalism and systems theory.

Incrementalism views public policy from the perspective that government activities are continued on an incremental basis from one government to the next. There is a tendency, in this model, for policy makers to accept established policies, and not to question their legitimacy. They do so, according to Dye (*ibid*, p.33), because they do not have the time, intelligence or money to formulate new policies, or because the implications of new policies are uncertain. Moreover, investment in existing programmes may be seen to preclude radical change, while

incrementalism, in general terms, may be considered as politically expedient from this perspective.

The systems theory of public policy is a response of the political system to forces in the 'environment', which is 'any condition or circumstance defined as external to the boundaries of the political system' (*ibid*, p.37). Hence, the political system is 'that group of interrelated structures and processes which functions authoritatively to allocate values for a society'. Outputs of the political system are seen as 'authoritative value allocations of the system, and these allocations constitute public policy' (*ibid*; Kogan, 1975). All the elements of the system are interrelated and the system is capable of enduring conflicting demands placed upon it. The demands are transformed into outputs through the process of settlements, which may have a modifying impact on both the 'environment' and the political system.

By definition, the role of the State is central and pertinent to state theory. Offe (1984:120) asserts that the capitalist welfare state 'seeks to implement and guarantee the collective interests of all members of a class society, dominated by capital'. In doing so, two contradictory roles in the capitalist state are being exposed; *viz.* its support for capital accumulation, and its drive to secure legitimacy through electoral support (*ibid*). However, the State 'only' has 'relative autonomy' in relation to this, a concept which refers to the relative autonomy of 'the political' and 'the ideological' from 'the economic' (Ball, 1990:13).

The State has to deal with structural contradictions in its policies, which can be accomplished through regulatory measures, or by means of 'scientific-technical rationality' (Habermas, 1976), which is a strategy of modifying political problems into technical ones. In this approach, citizens may become alienated from societal issues affecting them which, in turn,

may result in people becoming depoliticised; as the decisions are being taken by experts using specialist jargon (Codd *et al.*, 1990b).

Habermas (1984) points out that in advanced capitalist societies input and output crises exist. Because the State uses 'legitimate power', it needs to secure the input of a mass loyalty that is as unspecific as possible. An input crisis may result in a legitimisation crisis, he claims. The outputs consist of 'sovereignly executing administrative decisions', which manifest themselves as efficiency crises, such as a fiscal crisis, in troubled times. However, it is my contention that inputs and outputs are both internally and externally linked, the latter through the 'cyclical nature of crises' (*ibid.*, p.135) in modern capitalist accumulation. And therefore the crisis of legitimisation should not be seen as only applicable to the input side, but to both.

The actions of the State, or lack of them, in each of the above domains (ideological, economic, and political) is subject to continuous appraisal by groups and individuals in society. Since a political system is judged as legitimate or illegitimate, according to the way and the degree in which its values correspond with those affected by it, legitimacy is essentially evaluative (Lipset, 1984). Congruent with the cyclical nature of crises, legitimacy is bound by recurring processes.

Vaessen (1980, quoted in Akkermans *et al.*, 1986:94-5) identifies four phases in the legitimacy process. Firstly, 'legitimacy' is considered an essential condition for the stability of a social system; secondly, 'delegitimation' distorts the equilibrium of legitimacy, caused by public criticism on inadequate government policies, for example; thirdly, 'legitimation', refers to the process of 'explanation' and justification employed to create a 'new legitimacy' (*cf.* Berger and Luckmann, 1985); and in the last phase the existence of newly established social relations is being marked.

Weiler (1990, quoted in Welch, 1993:14), in applying to education the general principles underpinning Habermas's and Offe's ideas about legitimacy, maintains that the State has little room to manoeuvre because of the contradictions built into the system. Since the State's involvement in social and economic areas has increased, he claims, it need to enhance its 'legitimacy' accordingly, a process which he expects to result in crises of authority and governability, as well as a general system crisis (*ibid*). In warding off a crisis, the State may resort, in Weiler's view, to strategies, such as

legalisation (the increasing resort to legal remedies to control education), expertise (the strategy of using 'experts' to attempt to defuse contentious issues of policy) or participation (the selective) use of individuals who 'represent' groups involved in highly politicised educational issues) (*ibid*, p.15).

These three strategies are strategies of compensatory legitimation in educational policy, Weiler (1983) contends, while educational reform, as discussed earlier, is a fourth strategy. Because of the problem of 'legitimation deficit', Weiler (1983:260-1) asserts, 'the retrieval of legitimacy becomes a matter of central concern for those who hold the state's authority'. This concern, according to his thesis, significantly influences the way (educational) policies are designed and implemented.

It is in the context of the legitimacy and efficiency crises of the State that the policies of the neo-liberal Right have become dominant and need to be understood. The introduction of market elements in some countries is not necessarily confined to the education sector, but may well spread across to other public sectors. The introduction of market or choice-driven systems in education triggers the asking of the question whether marketisation will result in greater inequality or not.

Brown (1990:73) argues that the neo-liberal Right, or New Right, is concerned with reproducing an élite culture, in which the education system plays a key role. To achieve this end, it promotes the idea of a 'decomprehension' of education, in that selection for and access to education are largely determined by an ideology of parentocracy which, in Brown's opinion, is based upon the motivational and material 'attitudes' of parents towards their children's education. In the 'third wave', increased inequalities in educational opportunities are expected to be found, not a decrease. According to Ball (1993:4), the introduction of market reforms in education is 'essentially a class strategy which has as one of its major effects the reproduction of relative social class (and ethnic) advantages and disadvantages'.

Bourdieu, in developing a theory of social and cultural reproduction, introduced the concept of 'cultural capital', comprising human disposition or educational qualifications as objectified cultural goods (Nash, 1990). This notion is useful to this discussion since it suggests that through cultural practices social groups vie for real and symbolic advantages for present and future generations. The point to stress is that neutrality in either the market or education is non-existent, because their underpinning philosophies and observable practices are both culturally and politically constructed (Ball, 1993).

The marketisation of education and training should not only be seen in terms of the State's attempt to rationalise educational provision in accordance with monetarist economic management policies but, additionally, as an effort to devolve *selected* responsibilities pertaining to this sector out of the political sphere into the community. In balancing these views, a brief survey of the public choice theory is presented here.

The public choice theory's basic axioms are that it is a 'democratic' approach because it applies to all, and that all human behaviour is dominated by self-interest (Boston, 1991; *cf.* Buchanan, 1972). Public choice theory posits the fundamental claim that the market is capable of meeting all needs, and that choice to enter it is evenly distributed throughout the community (Ball, 1993). Although theorists of this school admit that inequalities in the market do exist (Tullock, 1972; Chubb and Moe, 1990), they are not interested in addressing the implications (Ball, 1993).

The public choice economic behaviour paradigm differs from 'private choice', because the latter applies to a fully competitive market only. Education and training, health, and social welfare are traditionally 'public goods', for which a national (or local) government typically has responsibility for, albeit to varying degrees, and therefore does not comply with the conditions of the 'private choice' model.

Ball (1993) has made the important point that choice presupposes costs, and that consequently the education and training market only exists for those who can afford to pay the cost (Brown, 1995). The espoused aim of 'a market for all' in public choice theory, is furthermore constrained by individual, social, cultural, and political factors. Again, the market is not a neutral phenomenon. Individuals may, for example, be prohibited from entering the market for dispositional reasons since they may lack the necessary skills (Ball, 1993). Hence, the ideology of the 'education market' perpetuates cultural and social class reproduction and division through the adoption of choice as a generic concept.

The rhetoric of the concept of choice in education and educational policy, couched in a language of empowerment, ignores the fact that the possession of 'cultural capital' is a necessary condition for making informed choices. As a result, a system of social exclusion and differentiation is maintained, which ensures the relative advantage of some

classes over others (Ball, 1993; Lauder, 1991; Brown, 1995). 'Choice', yet again, can be seen as a function of political legitimization, in that responsibility is devolved from the political system to the individual level of the citizens.

Public choice theory assumes that groups with vested interests may be excluded by the government from the policy-making process if those interests are incongruent with its position (Lauder, 1991). 'Provider capture' (10) is likely to cause educational standards to decline in a non-competitive system of education (*ibid*, p.423). The key issue is not whether this would be empirically the case, or whether a competitive market environment in education and training is capable of remedying a perceived 'crisis in educational standards', but that the State's paradigm shift towards marketisation in education and training constitutes a deliberate move to safeguard its political legitimacy by reducing educational policy conflicts (Weiss, 1993).

In conclusion, I agree with Dale and Ozga's (1991:13-4) view that neither the State, the economy, nor the community is permanently or necessarily dominant. They may at times work together, or on their own, in varying configurations, to jointly set the parameters for, and contribute to, the development of policy-making. Thus policy-making should be understood as a dynamic ongoing-process and consequently is one that does not stop at its implementation point, but is reformulated and redesigned, where needed, to meet new demands and challenges through processes of conflict and negotiation by the major role players involved.

NOTES

1 In this chapter reference is frequently being made to the concept of 'competence', and related notions, which are concepts usually employed in the literature associated with VET. I wish to acknowledge at this point that NZQA refrains from using these terms and is currently promoting the

notion of 'standards' that equally applies to all of education and training. The purpose and the specification processes which inhere in 'competence' and 'standards' and their technicist terminology are clearly highly interchangeable.

2 Throughout this thesis, information has been used that was gathered from formal interviews and informal personal contacts. The names, designations, and the organisations of the respondents are listed in appendix 1.

3 'Social partners', a term widely used in Germany, are the State, trade unions, and employers' associations. The 'social partner system' is an organisational co-ordinations principle which relates to such areas as vocational training and industrial relations, and which operates at national, regional and local levels.

4 The Prokla School was 'established' in the mid 1960s in Berlin, consisting of scholars who established the new research discipline of 'the critique of the political economy of education'.

5 Broady (1981) identifies the following reasons for this: firstly, educational expenditures reduce available funding for productive investments; secondly, people who are being educated cannot be used in the labour force; and lastly, an expensive education raises the value of the labour force. The latter point, however, has been questioned by Broady as for its accuracy; an issue which is addressed in a latter part of this work.

6 'Correspondence' refers here to the idea that each level of the education system functions to transmit appropriate work habits and attitudes to those wishing to enter the 'corresponding' sector of the occupational structure (Hickox and Moore, 1992).

7 Some of the countries following this path are: England, Australia, Scotland, New Zealand, and very recently South Africa and the United States of America.

8 The regrouping of vocational specialisation is taking place in a number of West European countries, including the Federal Republic of Germany, and is also occurring in many parts of Eastern Europe, notably in the former Soviet Union.

9 This categorisation has been borrowed from Fägerlind and Saha, except for my adding of number 6.

10 Following Lauder (1991:429), 'provider capture' is defined here as 'the ability of specific groups to insulate themselves from market disciplines and consequences by exerting political pressure'.

CHAPTER 2 VOCATIONAL EDUCATION AND TRAINING IN NEW ZEALAND: AN HISTORICAL SURVEY

THE EARLY HISTORY OF APPRENTICE TRAINING

The origins of the apprenticeship system in New Zealand can be traced to the arrival in 1843 of the "Mandarin" which brought 31 boys from Parkhurst prison in England who were to be apprenticed in the colony (Murray, 1936). But this first experiment in apprenticeship failed due to the hostility of the colonists to the convicts, the lack of skilled trades at that time in New Zealand, as well as the attitudes of the boys themselves (*ibid*, p.18). As the domestic conditions of production changed and overseas industrial competition increased in the second part of the 19th century, the need for systematic technical education became apparent (Purnell, 1884:402-3). However, it was not until the late 1880s-early 1890s that evening technical schools were established which were also to compensate for a lack of adequate education offered by the day schools at that time (Mason, 1944; Hunter Boyes, 1940). Day technical schools, however, did not come until much later.

The Master and Apprentices Act of 1865 was the first comprehensive piece of apprenticeship legislation in New Zealand to come into force. The main aim of this Act was to attempt to solve existing problems, *e.g.* providing for pauper children, as did apprenticeship legislation in England at the same time. In fact, the colony's Act was an extension of the laws of England (NZ Government, 1865). The historical significance of the 1875 Government Apprentices Act, which amended the 1865 Act, was that for the first time the apprenticeship term was specified, *viz.* not less than 3 nor more than 7 years (NZ Government, 1875:146). Two years later the Education Act of 1877 was introduced, which provided New Zealand with

a national system of free secular, and compulsory primary education administered under a central Department of Education.

The 1880s was a period of world-wide economic uncertainty. In New Zealand the price of wool fell steadily and it also was realised that overseas money borrowed in the previous decade had to be paid back. One consequence of the depression was that it showed how vulnerable apprentices were without legal protection, for employers had the right to refuse to indenture apprentices as they saw fit (VTC, 1975a). The prosperity of the 1890's did not improve the situation, as 'the rapid mechanisation taking place in industry, combined with the abundance of labour, allowed employers taking young people on as machine-tenders to exploit them in the same way' (*ibid*). However, these years were marked by the passage of a significant number of industrial and social legislative measures, e.g. the 1894 Industrial Conciliation and Arbitration Act (Deeks, 1994).

In 1899, George Hogben became the Inspector General of the Department of Education and became renowned for his expansion of the secondary system and for the introduction of technical education (Richardson, 1981). The 1900 Act amending the Promotion of Elementary Technical Instruction Act of 1895, Hogben's brainchild, provided capital assistance for providers, and broadened the definition of technical education. This subsequently became the foundation for the development of technical education in New Zealand. However, at the same time, it was realised that the pre-industrial apprenticeship system was outmoded, and was in need of an overhaul but Hogben's attempt to persuade secondary schools to undertake technical education failed.

In 1905, Hogben authorised the opening of the first day technical school (or technical high school) in Wellington. This school type was distinct from the technical college as it provided more general evening

class instruction (McKenzie *et al.*, 1990:10). Some of the reasons for the establishment of the technical high school were the economic use of staffing and resources to teach day and evening students on the same premise (Mason, 1944), and also to offer students leaving the primary school two or more years of pre-vocational training in general and specific subjects connected with their chosen occupation (McKenzie *et al.*, 1990:11). These schools, however, were never conceived as something complete in themselves, though they had initial success as they were receptive to the needs of the labour market. By 1910, technical high schools were established in all the main centres of the country (*ibid*, p.10).

In 1923, a conference was convened by the then Minister of Labour, G.J.Anderson, with workers, employers, and the Departments of Education and Labour represented, to consider a tentative bill to correct a situation in which New Zealand's apprenticeship system became increasingly criticised at a time of widespread unemployment among the unskilled (Murray, 1936; Kirby, 1956). The two main topics that were discussed were how to recruit more apprentices and to determine whether the apprenticeship system was out of date, given that a trend was noticeable of skilled trades being broken down into operative work (Department of Labour, 1923:H-11:12). The conference agreed that the future supply of skilled labour was unsatisfactory, and that new legislation should be introduced. The subsequent Apprentices Act 1923, which is considered a landmark in its field, formed the basis of an apprenticeship system which served the country for more than 65 years until the introduction of new radical education and training legislation in the late 1980s-early 1990s.

Under the Act control of the system remained with the Court of Arbitration and gave it the powers to make orders regulating the wages,

the length of the apprenticeship term, the hours, the minimum age of entry, and other conditions of employment (NZ Government, 1923). The policy behind the Act, which applied to male apprentices only, was to remove matters relating to the training and welfare of apprentices as far as possible from the field of industrial bargaining (The Commission of Inquiry into Apprenticeship and Related Matters, 1945). The Act made registration of every contract of apprenticeship compulsory while the Registrar of Apprentices, an official from the Department of Labour, and the District Registrars, had the responsibility to ensure that the Act was complied with. The Registrar was also to report periodically to the Director of Education on the numbers of apprentices required for industries, and related matters. The court was to act as a controlling authority rather than in its judicial capacity, and under the provisions of the Act, the court could delegate most of its powers to apprenticeship committees which were established under the new legislation.

New Zealand's industrial character as a predominantly urban nation dependent for its economic survival upon the British market for its agricultural products took definite shape in the years prior to the depression (Brooking, 1981). The manufacturing sector of the industry was considered underdeveloped in New Zealand by international comparisons as local factories were mostly small and the average size of industrial firms did not exceed twelve to twenty persons (Spencer, 1939). These factors did not contribute to a possible upgrading of technical education. On the contrary, the "learning on the job" and "sitting next to Nellie" approaches continued to prevail at that time as methods of training sufficient for the New Zealand economy.

The severe economic depression of the early 1930s affected the apprenticeship system badly. Employers were not keen to commit themselves to apprentices for several years, and the number of

apprenticeships dropped significantly in the period 1929-35 - from 9,943 to 3,329 - while another 15,000 young people were denied entry to a trade (Kirby, 1956:54). Slowly, industry and the general public became more confident in the future after these dismal years, but this was not reflected in the revival of apprenticeship, according to Beeby (1992). Nevertheless, an increase in the supply of apprentices became clearly noticeable until the event of the outbreak of World War II (1).

Of considerable significance in the development of education was the decision in 1936 by Peter Fraser, the Minister of Education in the first Labour Government, to abolish primary school proficiency examinations, thereby allowing students the opportunity to pursue post-primary study without having to pass an entrance test (Berrien, 1964:2). The implication of this policy decision was that the government had to re-examine the role and purpose of post-primary education, including the technical high school's position as a separate and inferior institution; this position being potentially at odds with Fraser's goal of making post-primary education accessible to everyone, and his aim of avoiding vocational specialisation. The dominant ideology at that time was welfare labourism which saw education as a public good.

F.H.Spencer's visit to New Zealand in 1938 was thus timely for as an English educationist, and retired chief inspector of the London County Council, he was asked to examine the state of technical education in both New Zealand and Australia. He was of the opinion that technical schools and academic schools should never combine into a single institution, but also that student selection was a necessary condition for modern post-primary education. Some of his suggestions for improvement found their way into policy in later years, *e.g.* industry and technical schools working closer together, and the introduction of day release instruction. Spencer not only observed that the 1923 Apprentices Act never produced the

desired technical schooling for apprentices, but also foresaw that the future of technical education would lie in expansion into the tertiary sector (McKenzie *et al.*, 1990).

Shortly after the Leader of the Opposition, S.G.Holland, publicly expressed concern in 1944 about the lack of incentives being available for young people to engage themselves in a long apprenticeship (2), a Commission of Inquiry into Apprenticeship and Related Matters was set up, under the chairmanship of Sir Arthur Tyndall. The Commission's brief was to investigate existing educational facilities of both pre-vocational and vocational character, and to report on the changes necessary to meet the present and future needs of the industry, to examine existing legislation bearing upon apprenticeship, and to make recommendations as to the legislative changes required (The Commission of Inquiry into Apprenticeship and Related Matters, 1945:1).

The introduction to the Commission's report mentioned that an increase in the number of skilled tradesmen was required so that New Zealand could achieve its social and economic objectives, *i.e.* a substantial increase in the population and an increased standard of living; the former required the services of an increased number of skilled people (*ibid*, p.4) (3). The report endorsed apprenticeship as the main method of educating and training recruits in the skilled trades, and supported the retention of the concept of apprenticeship wholeheartedly. However, despite the fact that the legislative basis for apprenticeships, the 1923 Act, was considered sound in structure, the Commission found that its principal weakness was the accompanying machinery (*ibid*). In order to overcome these problems, it recommended the appointment of a Commissioner of Apprenticeship as well as Deputy Commissioners, hereby replacing the Registrar of Apprentices and the District Registrars, while it also reconfirmed the importance of the local apprenticeship committees (VTC, 1975a).

The main advice the Commission offered on educational aspects was for the Dominion Apprenticeship Committees to consider instituting trade tests for all apprentices in the last six months of their term (The Commission of Inquiry into Apprenticeship and Related Matters, 1945). Hence, the successful candidate would be issued a certificate, which would be of value to its holders and employers alike (4). The topic of pre-vocational education of apprentices was a contentious one as many employers expressed concerns at that time that an unsatisfactory situation had arisen, which was partly blamed on the poor selection of apprentices. The Commission recommended that in trades with a high theoretical component only those who were considered as able to cope with it should be taken on. The argument that technical classes would improve the competence of workers was endorsed by the Commission; however, it was recognised that in a few trades only a low level of theoretical instruction was required (*ibid*, p.12).

On the national apprenticeship committees as well as the local committees a person conversant with technical education was represented. This brought the technical colleges into a formal association with the planning of apprenticeship training for the several trades, which was a development promoted by the Department of Education since the 1920s (McKenzie *et al.*, 1990). The Tyndall Commission recommended that the Department of Education firmly commit itself to providing for day release apprenticeship training where required. Most of the Commission's recommendations were adopted, and embodied in the Apprentices Amendment Act of 1946. This Act, with the 1923 Apprentices Act, formed the basis of the 1948 Apprentices Act to be administered by the Department of Labour (NZ Government, 1948a).

The key feature of this apprenticeship legislation was that the national and the local apprenticeship committees were given the statutory

responsibility for controlling apprenticeships (5). On the recommendations of the national committees, conditions of apprenticeship were laid down in apprenticeship orders made by the Court of Arbitration. These orders were made for each industry or branch thereof on a national basis, prescribing the wages, hours, and other conditions of employment; the period of apprenticeship in any industry, and the minimum age at which a person could commence as an apprentice in any industry. In making the orders, the Court of Arbitration had the power to apply the conditions of an award to apprentices, in whole or in part, and to determine the wages of apprentices which were payable pursuant to any industry award or agreement (*ibid*).

Following the introduction of the 1948 Apprentices Act, day-release courses, a new idea in New Zealand, were rapidly introduced (6). The first began in February 1949 in motor engineering at five schools and was soon followed by other trades (VTC, 1977; Kirby, 1956) (7). It was the usual practice at first for classes to be held for half a day, or four hours once a week, during the first three years of apprenticeship. The alternative of block courses, pioneered by the baking industry in 1950, was found to be more practical and became the most popular method (VTC, 1977).

THE NEW ZEALAND TRADES CERTIFICATION BOARD

The New Zealand Trades Certification Board (NZTCB) was created by an Act of Parliament in 1949, and for the first time there was a system of general provision for trade examinations in New Zealand (NZTCB, 1964). The government wished the NZTCB to be as independent an organisation as possible, for which reason its controlling board was directly made responsible to the Minister of Education. However, in its daily functioning, the NZTCB needed the advice and guidance from the Department of Education, 'which was very much considered the driver of

what was happening in education in New Zealand' (E.Taylor, interview, 1994).

The NZTCB's statutory functions were to make provision for the examinations of persons practising or intending to practice any trade, and to issue, either independently or in conjunction with any other examining body, certificates to any person eligible for recognition of proficiency in any trade (NZ Government, 1948b) (8). The Board's aims were proclaimed in its first annual report (NZTCB, 1948) as the setting of theoretical and practical standards, which an efficient apprentice or tradesman would be able to attain; to provide incentives for apprentices and tradesmen to improve their knowledge of, and their efficiency in their particular trade, and to establish courses of study and prescriptions suitable for the various trades.

Members of the controlling board of the NZTCB consisted of the Commissioner of Apprenticeship, and representatives of employers, workers, technical school teachers, the Plumbers' Board, the Motor Trade Certification Board, the Electrical Wiremen's Registration Board, and the Department of Education. NZTCB's number of permanent staff ranged from six in 1965 to about fifteen people in the early 1970s, which were all administrators (NZTCB, 1964). Ancilliary staff were hired for the examination periods (E.Taylor, interview, 1994). All matters of major importance were carried out by committees of the Board, which consisted of members of industry, education, and the board itself.

The 1948 Act, which was superseded by the 1966 Trades Certification Act, expedited the replacement of outmoded technological examinations, which were run by the Department of Education for only a few trades (NZTCB, 1964), by Trade Certificates, Advanced Trade Certificates, and their preliminary qualifying examinations under the control of the Board (Lee, 1970). For most trades the sequence of examination runs from the

First Qualifying Examination (one or two years after commencement of apprenticeship) to the Second Qualifying Examination (one or two years later) to the Trade Certificate Examination (held towards the end of the apprenticeship term), and ultimately to the Advanced Trade Certificate Examination (a year after completion of the apprenticeship), which is available for a number of trades. The preliminary examinations are nearly all written, whereas at trade certificate level there is often a practical test and a written paper (9).

Passing the TCB trade tests is only compulsory for employment in registrable trades (10); for other trades it is entirely voluntarily. Some people, who attained a Certificate of Due Apprenticeship when completing their term, but did not sit an examination, believed that they held a trade certificate. It was not until later that they discovered that they could get more pay when certificated. In a lot of cases, industries did not advise the apprentices properly of the examination system, and the advantages of trade certification (E.Taylor, interview, 1994).

The first of the new examinations were held in 1949. By 1960, these examinations covered 31 trades with 164 different examination subjects. There were 1,355 candidates sitting the examinations in 1949, compared with 9,035 in 1960 (Berrien, 1964) and 36,687 in 1988 (NZTCB, 1989).

Kirby (1956) declared that industry was satisfied with the newly instituted examinations, and that 'it was happy to pay the increased wages provided in many orders for apprentices to pass', while he also makes reference to the fact that daylight training for apprentices became more acceptable to employers after an initial adverse stance on the issue, as the value and standard of practical training at technical schools were looked upon with suspicion initially by industry (*ibid*, p.146; Lee, 1970). The trade unions, on the other hand, had always been in favour of daylight training. The amount of practical training provided by schools varied from trade to trade, which was directly related to the extent of specialisation within each

industry, the specialised equipment and accommodation required, as well as the Department of Education's ability to provide it (La Trobe, 1939). The Department's policy on practical training in technical schools was that they should refrain themselves from duplicating training for which industry was primarily responsible (11). Their role was defined as to assist industry to produce tradespeople with 'adequate theoretical knowledge and background, but leave industry to teach its own skills' (12).

From the outset, the Trades Certification Board's work was very closely linked to the apprenticeship system (E.Taylor, interview, 1994), and there was always a tendency to protect formal apprenticeship training to make sure that no short-cuts in achieving trade certification were possible. Before an apprentice became eligible for trade certification, the practical and theoretical requirements had to be met in full. To this end, an apprentice's examination progress was checked very thoroughly by the NZTCB, making sure also that all the requirements were met in the prescribed sequence (*ibid*).

Departing from its original policy of conducting examinations only for apprenticeable trades, provisions for non-apprentices to enter trade examinations became available after the introduction of the Trades Certification Act of 1966, when the term 'trade' became defined as 'trade or industry', which made it clear that the Board's power to introduce examinations was quite wide (NZTCB, 1966:6-7). The Board recognised that many persons acquired trade skills and knowledge equivalent to that acquired during a normal apprenticeship (*cf.* NZTCB trade prescriptions). For a number of occupations, like boiler attendants and concrete operatives, non-apprenticeable examinations were instituted by the Board, while for a number of non-examinable trades, *e.g.* moulding, a trade certificate was issued upon completion of a formal apprenticeship (NZTCB, 1964). These measures, introduced over time by the Board,

clearly underlined a policy change towards more flexibility in examination and certification systems.

In the early days of the NZTCB, practical examinations were set by the Board and carried out at a teaching institution. As time went by, this changed to a situation where students were either internally assessed at the provider's premises only or just on the reliance that the combination of formal training in a school setting and the completion of apprenticeship would suffice in ensuring standards had been met although 'There was no real check on that' (*ibid*; NZTCB, 1978:4). The problems with formal practical tests were that they were difficult to administer and were expensive, and also that a moderation system was non-existent in those days. Theory acquisition was tested through formal external examinations which were norm-referenced while the result committees of the NZTCB had the task to ensure there were 'reasonable' pass rates (*ibid*).

New prescriptions were recommended to the NZTCB by the national apprenticeship committees and industry groups, when a revision was thought necessary. It was the Board's policy to co-operate with industry in meeting their needs, while refraining from taking the initiative (Kirby, 1956), and the Board would set up a prescription review committee. The trade prescriptions were largely based on skills set by the apprenticeship division of the Department of Labour, which had to be covered by formal apprenticeship training. The NZTCB could introduce additional skills to those already required, which was done in consultation with employers and trade unions. The first draft was reviewed by the Board and sent for comment to the appropriate national apprenticeship committee. The views of the technical schools were also sought. Upon approval by the NZTCB of all the conditions, the details were printed and examinations instituted (E.Taylor, interview, 1994).

In the early 1950s a demand for training for engineer's assistants led to the inauguration in 1955 of the New Zealand Certificate in Engineering, which was the first technicians' course in New Zealand. One year earlier, the Controlling Authority for New Zealand Certificates in Engineering was established, which was superseded in 1958 by the Technician's Certification Authority (VTC, 1975a), an awarding body responsible for the examination and certification of technicians. This, in turn, was superseded by the Authority for Advanced Vocational Awards (AAVA) in 1979. The five-year part-time New Zealand Certificate courses were normally offered by the technical institutes (13), and were available in the early years of the authority's existence in the areas of engineering, draughting, science, building, quantity surveying, commerce and statistics (Dakin, 1973). One of the criteria of eligibility for the award of the certificate was that the candidate had to submit proof of three years' of relevant work experience.

In 1959, two-year residential courses were introduced for Maori carpentry apprentices in rural areas where apprenticeships were generally not available. After completing these two years, Maoris were placed with employers to complete their apprenticeship in a normal way (VTC, 1975b:19). This idea was later extended to other trades, like electricians and painters, and is regarded as the starting point of full-time pre-vocational training in New Zealand, with technical institutes providing the training (McQueen, 1960). This scheme entailed the transfer of not only the costs of apprentices' early training from the employer to the government, but also a gradual shift of training from industry to technical institutes, which was once regarded as the sole province of employers.

The establishment of the New Zealand Council for Technical Education in 1959, which had as task to advise the government on the

needs of the industry and commerce, marked the beginning of an era of increased interest in technical education (Berrien, 1964). Technicians and semi-skilled operatives were in high demand to support the rapid technological changes taken place in industry (The Commission on Education in New Zealand, 1962). The need for technical and vocational education was not only recognised by the Industrial Development Conference of 1960, but also by both the Commission on Education in New Zealand and the Commission of Inquiry into Vocational Training (*cf.* Keir, 1960). One of the most important industrial changes at that time was the rapid expansion into the secondary sector, and the further mechanisation of primary industry, for which more skills and better training for large sections of the population were called for (The Commission on Education in New Zealand, 1962).

The 1960 conference acknowledged that the development of human resources is of vital importance to a nation's aim for prosperity, while also making clear that types of qualified workers with different skills bases were required to achieve this goal, *viz.* tradesmen, technicians and technologists (Keir, 1960; The Commission on Education in New Zealand, 1962). For the training of skilled workers, a nominal 10,000 hour term had prevailed (14), which was protected by the employers as they argued that the full term of apprenticeship was needed to train an apprentice (McQueen, 1960). Despite resistance to term reduction, the passing of the trade certificate examination could gain an apprentice 2,000 hours, and in several industries credits of 1,000 hours were given at the beginning of an apprenticeship for those holding School Certificate for which often specific subjects had to be taken, *e.g.* mathematics. As early as the 1960s, the question of raising the school-leaving age to 18 was considered but was not resolved (The Commission on Education in New Zealand, 1962:19).

The conference concluded that an imminent change had to be made to the structure and nature of apprentice training to enable projected industrial expansion to occur (*ibid*, p.5). The central issue addressed was whether a new conception of vocational and technical education was needed, or whether a continuation of the 'hit and miss' system of work-based training would suffice (*ibid*, p.3) (15), while at the same time the importance of 'training for skill' (Keir, 1960) was professed. This had to be realised through the development of a vocational training system suitable for all the needs of workers aged between 15 and 18. Although overseas models had been looked at for reasons of comparison (*cf.* McQueen, 1960; Keir, 1960), a solution suitable to New Zealand's dispersed small population and its small-scale manufacturing industry, had to be found.

THE CURRIE REPORT

The Currie Commission was instituted in a period (1950s-1960s) characterised by mounting public criticism of state education, in particular on the issue of equality of opportunity, at a time of a sharp growth in the school population (Dunstall, 1981). The task put before the Royal Commission, under the chairmanship of Sir George Currie, in 1960 by the Minister of Education was to review the education system below the university level with regard to the future needs of the country. The Commission was mandated to attempt 'to exploit the talent of the community' in the light of further developments required to meet the needs of education, as well as those of industry and commerce (The Commission on Education in New Zealand, 1962:59).

In considering the future of the technical high school, the Currie Report recommended that this type of specialised secondary institution (16) had outlived its distinctive function due to the introduction of universal post-primary schooling, the rise in the school retention rate, and

the development of a common core curriculum which promoted general secondary education for all (McKenzie *et al.*, 1990). The detachment of technical education from the secondary system was advocated by the Commission as a timely and wise step, which also would bring New Zealand in line with overseas trends by offering technical education at tertiary level (The Commission on Education in New Zealand, 1962). The transfer of technical education into the tertiary sphere was legislated in the Education Act of 1964, so that a pattern emerged of broadly-based secondary education followed by more specialised studies at tertiary level.

At the time the Commission prepared its report, tertiary-level technical institutes had opened, *e.g.* the Central Institute of Technology (1960), Auckland Technical Institute (1961), and Wellington Polytechnic (1962), and these were followed by the establishment of Christchurch Technical Institute and Otago Polytechnic in 1965 and 1966 respectively (Potter, 1968). These institutes were established very much on similar lines to those in England, and were given their own regulations in 1968, being funded by annual grants administered by the Department of Education (Lawrence, interview, 1994). The Commission strongly supported a further development of technical education as it was convinced that New Zealand was in danger of underrating the economic value of this type of education.

As regards apprentice training, the Commission was satisfied that the existing arrangements were suitable for the country, and it believed that the cooperation between the Departments of Education and Labour, the schools and trades was 'effective and complete' (The Commission on Education in New Zealand, 1962:393). It commented upon the popularity of institution-based block courses, delivering theoretical instruction to apprentices to supplement their on-the-job training and noted industry's confidence in the training and trades examination systems, which was

indicated through its willingness to allow for apprenticeship term reduction on the basis of higher entry level qualifications or the passing of a trade examination.

The report reinforced Fraser's 1939 policy statement on education as it concluded that there was a national consensus about the development, aims, and the role of the education system (McCulloch, 1990). The Currie Report reflected and encouraged the dominant view in society of the accomplishment of gradual progress in public education achieved in a prosperous and complacent post-war era in New Zealand. However, the report itself can be seen as an instrument in transmitting an ideology that sought to satisfy clients, sponsors, and the population as a whole about the value of state education (*ibid*, pp.6-7). The value of the Commission's report with regard to the development of the apprenticeship system cannot be deducted from its uninspiring suggestions, but merely lies in its thorough documentation of the status of New Zealand education.

THE TYNDALL REPORT

In 1965 a Commission of Inquiry into Vocational Training was held, which was chaired by Judge Sir A. Tyndall. Its terms of reference were to inquire into vocational training at all levels of industry, including apprenticeship (17) and technician training, and the need for change in the light of an estimated population growth and economic development, and accordingly to recommend any new legislation required (The Commission of Inquiry into Vocational Training in New Zealand, 1965). The Commission reported that although the system of vocational training was working satisfactorily, a more systematic approach to broad-based apprentice training was needed, which had to be based on sound methods of instruction to ensure that apprentices were exposed to good habits.

Trade specialisation, in the view of the Commission, could be built upon apprenticeship completion.

Substantial attention was paid in the report to educational issues, and this resulted in various recommendations. These included the advocacy of pilot programmes for apprentices to spend periods in trade school in the early months of their term (18); to raise the school-leaving age to 16, and to rely on inducements such as higher pay for certificated tradesmen, rather than to strictly adhere to compulsory examinations for apprentices (VTC, 1975a). Other suggestions brought forward were the need for training schemes for adults to help meet the shortage of skilled tradesmen, the introduction of extended block courses on an experimental basis, and the setting up of a Vocational Training Council (*ibid*). A number of these recommendations have been adopted since, like apprenticeship term reduction, skills lists updating, and the establishment of the Council.

In its opinion on the functioning of the New Zealand Trades Certification Board, the report expounded its success would lie in the close cooperation it had established with industry and its practice not to initiate any changes to examination programmes, which in the main derived from the employers and workers representatives (The Commission of Inquiry into Vocational Training in New Zealand, 1965). Furthermore, the report endorsed the retention of a system of employers certifying the practical abilities of their apprentices, emphasising the prominent place of trade experience in apprentice training. On the other hand, it also affirmed the necessity of an apprentice gaining increased theoretical knowledge (*ibid*, p.26). These factors portray the existence of a dual system of vocational education which, at face-value, appears to resemble elements of the German training system.

THE VOCATIONAL TRAINING COUNCIL

The New Zealand Council for Technical Education was disestablished since it was perceived to have failed to function effectively as an advisory body to the Minister of Education (Potter, 1971). One year later, the Vocational Training Council was set up by statute as an advisory body to the government and other authorities on aspects of vocational training, as proposed by the Tyndall Commission (NZ Government, 1968). The council became operational in 1970, at a time when the euphoria of the 1969 National Development Conference was still lingering (Potter, 1971).

This conference had consisted of several committees, of which the Committee on Education, Training and Research was but one. Its terms of reference empowered this committee to investigate how its sector could contribute to the conference's basic policy issue of trying to achieve change to existing attitudes and policies so as to increase economic growth through the more efficient use of human resources (Committee on Education, Training and Research, 1969). The main proposals put to the forum were the promotion of transfer between trades and technician courses; provision of bursaries for students of vocational qualifications; an increase in the proportion of theoretical instruction for apprentices (19); continuous review of skills, knowledge and requirements for each trade; redefinition of responsibility for trade training between technical institutes and employers and institutional provision of vocational training for operatives similar to provision for apprentices.

A significant proposal was the inauguration of national diplomas. A newly established council was to be charged with the responsibility for setting and maintaining standards, and for the award of these higher level qualifications. Furthermore, it was proposed that technical institutes should be established in the smaller centres of population, that cross-

crediting from technical institutes to universities should be extended, and, lastly, the providers should become more actively involved in providing training in specific skills, including the assistance with works-based training for which employers bear the full cost. Conversely, the State was to continue to provide broad vocational training according to existing arrangements (*ibid*, pp.12-16).

The Vocational Training Council, an independent consultative body, advised the government through the Department of Labour, and had the task of coordinating and stimulating effective training at all levels of employment and in all sectors of the economy through improved methods of identification and forecasting (VTC, 1970). A feeling existed that current manpower and training shortages prevailed (Stuart, interview, 1994) at a time when population growth had slowed down, and the need for manpower planning was 'shamefully self-evident' (Harrison, 1970:137). Hence, the requirement for forecasting training needs and the council's aim of systematically introducing training for each sector of the economy.

It was not until the early 1980s, however, before the government committed itself to a more active labour market policy, for which the Department of Labour became responsible.

The Council encouraged individual industries to establish their own

working parties, which reflected the broad approach taken to training, of which the apprenticeship and related trade training advisory committee was only one among several (VTC, 1976) (21). This committee set out to review apprenticeship in subsequent years.

The 1974 budget announcement of government to introduce five training incentives programmes (VTC, 1975b) was a measure which aimed to extend and to improve existing training activities by providing subsidies for employers at a time when unemployment had become a national problem in New Zealand. The policy answer to this problem was the introduction of the notion of lifelong learning (VTC, 1978; Report of the Working Party on Improving Learning and Teaching, 1974; New Zealand National Committee for UNESCO, 1978), and was exemplified by the fact that the Education Amendment Act (No.2, 1974) subsumed technical education into its term continuing education. This term was defined as 'education, including vocational education, provided for persons who are no longer required to attend school' (*ibid*), and 'stressed open and continuous access to educational opportunity at all levels, for people at all ages' (Renwick, 1975, cited in I.Hall, 1983:43).

It was clear that the division of education and employment into separate spheres was losing its relevance. and it was further being recognised that technical and vocational education had to make a considerable contribution to government's policies of employment and training. As a result, continuing dialogues between industry, education, and the government have gained credence ever since.

The early 1970s had seen a number of new trends in apprenticeship training, one of which was a much greater proportion of the training was being carried out in a technical institute, where the apprentice received training in both the theoretical and practical aspects of the trade (VTC,

1975a). The policy implication of this move was that, according to W.L.Renwick, the then Assistant Director-General of Education,

by cutting down the doctrinal hedge against training as a function of technical institutes, and by removing the conceptual distinction between technical education and training, the ground should now be cleared for a reconsideration of the functional responsibilities of the various agents in the field of industrial training (VTC Newsletter, 1974:4).

Under this new model, in which the training system would have closer links with the labour market, a sharp distinction between education and training would not exist.

Research conducted by the council showed that apprentices taking 18 weeks of full-time instruction in the practice and the theory of their trade, followed by on-the-job training for the rest of the year, another new trend, reached an achievement level normally attained by apprentices at the end of their second year (*ibid*). A disadvantage of extended institutional training was the cost incurred by the employer for releasing apprentices for a longer period with pay. The pilot programmes in the trades of carpentry/joinery, motor, and engineering were successful to the extent that some of these trades adopted the new system of training.

The government had agreed to provide a subsidy for those employers wishing to engage in the new scheme on the condition that they had to review the effectiveness of their on- and off-the-job training methods (*ibid*, p.7). A VTC survey conducted revealed, however, that employers did not strongly support extended trade training schemes (*cf.* VTC, 1979), and were not keen on radical change to existing training arrangements. It was noted also that there were trends towards reduced terms of apprenticeship and a move towards internal assessment (Hall, 1983).

A number of conferences and seminars on apprenticeship were held in 1977, which resulted in the council's decision to conduct a thorough review of apprenticeship so as to position itself for the future course of trade training. A fair degree of dissatisfaction with the apprenticeship system was expressed not only at these conferences, but also observed by visiting OECD examiners (OECD, 1983), who identified a number of areas of concern, *viz.* quality of on- the-job training, skill training not meeting demands of emerging occupations and failure to identify skill requirements.

Dissatisfaction, however, was not only confined to apprenticeship but also with the education administration system of that time, and this had been expressed by the public at forums in the first half of the 1970s. These forums voiced their wish for greater local autonomy in educational issues. The Nordmeyer (1974), Holmes (1974) and McCombs (1976) Reports identified that changes were needed as well as serious flaws in the administration of schools, but the situation was not improved upon in either education or training (Barrington, 1991). Thus, an education policy of 'purposeful complacency' prevailed, ensuring that the *status quo* continued.

In reaction to the perceived problematic state of apprentice training the 1977 Technical Institutes Association Conference keynote address by Major-General L.A. Pearce, Chairman of the Vocational Training Council, called for a more flexible, revitalised system that was also able to attract the various parallel trade training schemes (*e.g.* chef trainees and farm cadets) into its overall training structure (Pearce, 1977; *cf.* VTC, 1976). The existence of these parallel training arrangements had been perceived for some time as being a problem in need of resolving.

Submissions to the VTC's subsequent 1978 discussion paper "Review of Apprenticeship" reflected industry's concern with some aspects of the apprenticeship system. One submission suggested the return to the technical high school with its emphasis on pre-apprenticeship training (VTC, 1978:18). Poaching of trained staff and premature apprenticeship termination (22) were identified as problem areas, as were the quality and organisation of on- and off-the-job training, and the decreased status of the trades. The alternative approaches to apprentice training suggested in the paper were a standards-based modular training approach, as developed by some industries in the United Kingdom, alternative forms of apprenticeship contracts, and group apprenticeship to industry (*ibid*, pp.27,30). Nonetheless, the comments received on the apprenticeship system were 'very much concerned with maintaining the *status quo*' (VTC, 1980a:2).

The revised trade training system proposed by the VTC consisted of a number of components. These included the recommendation that the industry training boards and the Manpower Planning Section of the Department of Labour become jointly responsible for initiating and coordinating manpower planning. The founding of a New Zealand Apprenticeship Commission was recommended to deal with policy matters common to all trades. Systematic on-the-job training was to be improved through the use of on-job training manuals, instructor training for all persons instructing apprentices on-the-job, the maintenance of accurate up-to-date training records, and visits from local apprenticeship committees. The council also suggested the introduction of a stratified training system, comprising broad-based initial training in transferable skills, followed by specialist skills (*ibid*, pp.36-7) (23). The council acknowledged that for some employers it would be increasingly difficult to provide a full range of skill training in their apprentices' training, and

therefore recommended the extension of both off-the-job training and group apprenticeship as suitable solutions.

The council urged its recommendations be adopted as it was strongly convinced that the existent system of apprenticeship would not be able to meet the changing needs of industry in the 1980s (VTC, 1980a). Whereas the 1960s in New Zealand could be characterised in terms of prosperity and full employment, the 1970s saw change and uncertainty brought about by events which affected the domestic workforce environment, *e.g.* Britain's entry to the European Economic Community in 1973, resulted in New Zealand's restricted market access, and a world oil crisis which sparked off worldwide inflation and caused expensive debt servicing.

A tradition became established in New Zealand in the 1960s and the 1970s, in that a part of the nation's skill requirements were met by training New Zealanders, and the remainder filled through immigration (Bolger, 1981; VTC, 1988). But this was deemed inappropriate for meeting the challenge of the next decade according to the New Zealand Planning Council's report "Employment: Towards an Active Employment Policy" of 1981 (cited in Bolger, 1981:8). The report identified changes required in certain aspects of the labour market policy, including apprenticeship training, and stated that skills shortages had to be remedied through the improvement of training, rather than through immigration. It proposed changes to apprenticeship training, which concurred with those previously suggested by the Vocational Training Council in its 1978 review report.

The Planning Council's proposals relating to training issues were endorsed in the 1981 government's White Paper "Apprenticeship for Tomorrow". Although this document reported the principles underlying the apprenticeship system to be sound, it concluded that the system was

unduly rigid, and was kept in place by conservative attitudes by all parties involved in the system (*ibid*, p.10; Kerr, interview, 1994). This document invoked the necessity of apprenticeship reform. It recognised that the skills required for the present are not necessarily the ones needed for the future, and that apprenticeship training must not be seen therefore as an end in itself but a base for future skill development. Accordingly, the government directed an apprenticeship training needs analysis be carried out (*ibid*, p.26), and for key skills to be identified, for which the VTC would become responsible (VTC, 1982). Furthermore, the government wanted to place greater emphasis on broad-based training in the early stages of the apprenticeship. It would consider assisting with the cost of pre-apprenticeship training in technical institutes as it recognised the trend towards increased institutional training. An apprenticeship commission as advocated by the VTC was not supported by the government because it found the existing labour market advisory bodies were performing adequately.

A tripartite advisory committee on apprenticeship reform was set up to advise the Minister of Labour on issues relating to the implementation of the proposed changes. Its work ultimately led to the passing in parliament of the 1983 Apprenticeship Act. One of the key features of this Act was its provision for the existence of different types of apprenticeship contracts, such as apprenticeship to industry, as had been proposed previously (NZ Government, 1983). Additionally, the scope of both the national and the local apprenticeship committees was extended (*cf.* NZ Government, 1948b). The national committees were now empowered, for example, to recommend the inclusion in apprenticeship orders of modified systems of apprentice training so as to ensure that sustained numbers of skilled workers were available in the short term (NZ Government, 1983). However, this new legislative framework delivered in reality only modest

changes to entrenched attitudes (Kerr, interview, 1994). This, of course, can in part be explained by the historical importance attached to apprentice training in New Zealand because it was as much an industrial relations device as a way of training people.

At this juncture it should be noted that policy for technical and vocational education was the prime responsibility of the central Department of Education (Hall, 1983). The responsibility for policy development and implementation was divided among several agencies, *viz.* the VTC and its industry training boards, the Departments of Labour, Education, and Maori Affairs, the national and local apprenticeship committees, the providers, NZTCB, and AAVA. The Standing Committee on Relationships in Tertiary Education (SCORITE) was set up in 1972 as a forum where education administrators could meet to discuss possible developments over the entire field of tertiary education, and offer advice to the Minister of Education.

The Department of Education also interacted with a number of non-government bodies, like the Association of Teachers in Technical Institutes, and the Technical Institutes Association, with consultation taking place through a Standing Committee on Technical Education. Furthermore, it exercised control over the operation of technical institutes through the allocation of resources and the provision of equipment, and coordinated the location of courses and the level at which these courses were taught (*ibid*, pp.9-10).

In summary, the major developments of apprenticeship until 1984 were the transfer of technical education from the secondary to the tertiary education sector, which culminated in a network of regional technical institutes and community colleges, a technical correspondence institute,

and a national institute (Central Institute of Technology). The introduction of institutional training from the late 1940s, led to the establishment of the NZTCB in 1948 and extended trade training being introduced for apprentices in the early 1970s. The introduction of technician training in 1949, and the setting up of the Technicians Certification Authority in 1958, which was replaced by the AAVA in 1979, saw the establishment of the VTC in 1968 as a tripartite advisory body on vocational training. The development since 1972 of a network of industry training boards was an attempt, industry by industry, to promote a more systematic approach to training.

The changes made over time to the structure, content, and organisation of apprentice training in New Zealand clearly indicated a move towards increased systematic training, and its importance in meeting the challenge of modern technology, the growth of the service industry, and international trade. However, the contribution of formal apprenticeship to meeting the needs of the changing economic circumstances decreased in importance, which partly reflected the fact that employment opportunities were increasingly becoming available in the service sector, for which sector there was generally no apprentice training to hand (Haines, 1988). The apprenticeship system had been subject to sustained criticism but because of vested interest and complacency no radical changes had been made to enhance its relevance to modern economic conditions (Deeks, 1994; Kerr, interview, 1994). Apprentice training was the only formal route in New Zealand leading to skilled worker status but it covered a limited number of occupations only and served a relatively small section of the economy.

The decision of government to seek a common basis for apprenticeship reform was therefore an important one in the sense that this required a systematic analysis of the tasks of each trade. Subsequently,

the foundations for a paradigm shift from time-served apprenticeship to an emphasis on the identification of skills needed were laid. The Developing a Curriculum method (DACUM) was selected by the VTC as the appropriate instrument to achieve this (Burleigh, 1989) (24). The training needs analysis unit of the council undertook projects in 1984-85 to assist apprenticeship committees by conducting these training needs analyses. By applying this method, each occupation could be broken down into knowledge, skill, and attitude components. The advantage of this new approach was its broad occupational applicability, which was not confined to the limited number of apprenticeable trades (*ibid*, pp.229-232). Burleigh made reference of the fact that the majority of the unit's work did not relate to apprenticeship, while also noting a growing demand for assessed competence.

The next chapter will develop this topic in further detail, and concomitantly regress to address aspects of apprenticeship reform in the 1987-1992 period. The remainder of this chapter will concentrate mainly on relevant tertiary education review reports, discussing broad education and training policy developments.

THE GENESIS OF RECENT EDUCATION REFORMS: AN INTRODUCTION

Although the historical roots of current education reforms in New Zealand can be traced to the 1970s, the coming to power of the fourth Labour government in July 1984 was the starting point of sweeping changes in not only the education and training sector, but also in the nation's overall economic and social orientation. During the 1980s dissatisfaction with parts of the education system was augmented by a greater awareness in society (*sic*) of some wider social problems, such as racial inequality, a rapid rise in crime, and increased unemployment.

Furthermore, and significantly, overseas developments in education were used by the New Right to criticise the state of affairs of the nation's education system (Barrington, 1991) (25). This was accompanied by a growing feeling among many parents and politicians that education was not delivering what it should (*ibid*, p.295). It could be argued that these factors helped to create an environment conducive to a radical challenge.

In this period, a distinct sense of social division became discernable in New Zealand with inequities in issues of gender and ethnicity becoming a major concern. A focus on the failings of the education system in not being able or purposefully not willing to demarginise the social and cultural issues in the provision of public education posed a formidable challenge to the liberal assumptions that had previously seemed so convincing (McCulloch, 1990). Developing parallel to this was a severe crisis of legitimation (Codd *et al.*, 1990a), perpetuated from the previous National Government into the fourth Labour Government era, manifesting itself through continued, highly centralised forms of public governance and being seen to be undemocratic (*ibid*). Both political parties were struggling to secure an ideological control over education.

Running counter to an evolving right-wing ideological dominance was the development in the 1980s of a left-wing critique of public education, which had done much to undermine earlier confidence in the soundness and progress of the education system (McCulloch, 1990).

TERTIARY EDUCATION REFORMS: 1984-1987

In this section a number of government reports will be analysed, which are essential for understanding the evolvement of the educational reforms from 1984 to the present day. It is important to reiterate at this point that the educational reforms cannot be dissociated from the broader economic and social policies of the Labour government. However,

limitations of space require that the dominant focus of this thesis is on educational policies and therefore relatively little attention is paid to details of those named broader policies.

The election of the Labour Government created a Neo-Liberal revolution in New Zealand (Lauder, 1990; Dale, 1992). "Rogernomics", as it became known under, was essentially a drive for increased efficiency and accountability, and for the putting in place of a programme of economic liberalisation (Bollard and Mayes, 1993). The Treasury (1984:104) assessed the New Zealand economy in 1984 as one 'beset with serious structural difficulties', which had difficulties adjusting to new economic realities because of unbalanced government policies. Consequently, the Treasury proposed to the incoming government an economic management approach capable of adjustment, for which a steadier monetary policy, smaller government deficits, and a freer exchange rate policy were required (*ibid*, p.107). The Treasury's "Economic Management" report must be regarded therefore as a document which ushered in a new era affecting every aspect of the society, including education and one which introduced a Thatcherite enterprise culture (Barrington, 1991; Peters *et al.*, 1994).

The section of the report dealing with educational issues made it clear in no uncertain terms, that in the Treasury's (1984:268) view the poor performance of the education sector contributed directly to the adjustment problems of the labour market and, indirectly, to the economy's performance. In its analysis of the nature of education, as either a private or a public good, the Treasury asserted that tertiary education is more a private than a public good. Students of school leaving age, it followed, are capable of making informed decisions as to which qualifications they wish to pursue for labour market application. Therefore, these individuals have incentives to invest in education. This line of reasoning led to the statement that a greater use of market processes in the provision of

tertiary education was to be considered, with the government retaining an important role in state subsidiation (*ibid*, p.269).

The Labour party's education policy (NZ Labour Party, 1984) stressed the importance of an 'education for purpose' in support of achieving the aim of an added-value economy, which required a well-trained, educated and mature workforce. By international standards, the participation rates for young people beyond the age of 15 in New Zealand were (and still are) low. To improve this situation, Labour advocated access to further education and vocational training for those school leavers failing to find employment in their first year after leaving school. This policy priority of higher post-compulsory education and training retention rates, was further emphasised by Labour's wish to initiate a review of all aspects of continuing and tertiary education in order to meet the learning needs of the country (*ibid*, p.9).

In tandem with education and training reforms, the Labour Government adopted a hands-off approach to labour relations which was reinforced by the enactment of three pieces of legislation, *i.e.* the 1986 Enterprises Act, the 1987 Labour Relations Act and the 1988 State Sector Act (Deeks *et al.*, 1994). These acts intended to establish a more flexible, deregulated labour market, supporting the nation's newly embraced monetarist economic policies.

The Labour party document further characterised education at that time as a battle ground which needed to change into a more cooperative and consultative environment, 'with an intention to devolve as far as possible, decision-making away from Wellington into the regions and communities' (*ibid*). Public consultation was deemed important by Lange, the Prime Minister, at a time of rapid change in society.

As Labour's first term progressed, pressures from the public and from the party grew for a more radical change. A Parliamentary Education

and Science Select Committee, set up in 1986, investigated the quality of teaching (Barrington, 1991). After examining the professional status of the teachers and their performance their report registered the existence of an outdated and complicated administrative structure, the existence of limited accountability structures, and the occurrence of a 'provider-capture' (*ibid*). The significance of this document is that it demonstrated that in their struggle for ideological control both the Labour and the National Party were using the same arguments to put the other party on the defensive.

The mid 1980s saw the occurrence of certain events which contributed to laying the foundation for far-reaching reforms in education and training and which would not only change the provision and administration of the system but also its very nature. Subsequent chapters will deal with these events in detail.

In 1987 a Ministerial Working Party was set up by the then Minister of Education, Russell Marshall, to further investigate the issues of educational administration and provision (Probine and Fargher, 1987) and resulted in the so-called Probine/Fargher Report. The Party was asked to look particularly at a number of important issues, such as the (by international standards) low participation rates in tertiary education in New Zealand (*cf.* OECD, 1983), institutional management, technological skills attainment rates, and access to education for those disadvantaged. The Party reported that because of the existence of more than 50 examining and registration bodies, 28 industry training boards and some 30 apprenticeship committees there existed a serious lack of coordination in the delivery of educational services (Probine and Fargher, 1987), while the Department of Education's management style was deemed centralist and interventionalist (*ibid*).

As the technical institutes played an important role in providing vocational education and a potential contribution to the country's economic growth (26), the authors recommended that the institutions be allowed to adopt a more entrepreneurial approach to the provision of services within the limits of the provider's charter. They should have increased responsibility for resource management and for the quality of education they provided, while assuming greater accountability in turn. Also they should no longer be under the Department of Education, the latter's responsibilities were to pass on to a proposed Continuing Education and Training Board (*ibid*, pp.iii,41-5) which would have both a policy and operational role, providing a coherent and integrated structure for the delivery of education and training.

TERTIARY EDUCATION REFORMS: 1987-1992

Whereas the 1984-1986 can be labelled the nation's adjustment to a new economic orientation, the 1987-1992 era saw a number of important reports commissioned and legislation enacted, which particularly relate to the social and the educational fields. Just prior to the election of 1987 a taskforce to review education administration was set up, which clearly indicated that the ideological struggle appeared to have been settled to the advantage of the New Right (Lauder, 1987; Grace, 1988).

The National party went into the general election of 1987 with education issues high on its political agenda. In its education manifesto, "A Nation at Risk", it made clear in no uncertain terms that changes to the education system were unavoidable. Better school management, it was advocated, would be ensured by entrusting schools with greater responsibility for their own management (National Party, 1987, cited in Barrington, 1991:297). The manifesto brought forward also the claims that illiteracy was a major problem in New Zealand, that more emphasis was

needed on basic school subjects and the criticism that the management style of the Department of Education was essentially interventionist and highly centralised (*ibid*). In addition, the document stated that it would like to see decisions on the employment of teachers decentralised to the managing boards of the schools as well as having parental choice increased. These examples of proposed changes must be seen as a part of a larger picture in which the National party purposefully manoeuvred to gain ideological and political dominance in a period of educational flux.

A key factor underpinning both the Treasury's and the National party's policy position on economic affairs was their awareness of New Zealand having to perform much better, economically, and, therefore, educationally, in order to achieve the level of international economic competitiveness demonstrated by other OECD countries. In achievement of this the Western world has embraced the notion of 'quality', and the associated concepts of 'excellence', 'efficiency', and 'standards' for application to both the economy and education (Angus, 1991:245).

Another force which had to be reckoned with in the period directly prior to the reforms was the media which attacked aspects of the existing education system with considerable force (Barrington, 1991). The teacher unions and the teaching profession at large, including the education administration sector, were portrayed as clinging to their vested interest in education and, thereby, perpetuating the crisis situation in education (*ibid*, p.298) (27).

The Treasury produced two "Government Management" documents in 1987, the latter being subtitled "Educational Issues", which fully stated the department's neo-liberal ideology and its invocation of applying market principles stringently to the provision of public education in New Zealand. In this second volume reference was made to the notion of 'capture', with the Treasury arguing that the state (including the

education system) was in danger of capture from lobby groups and its own bureaucracy' (Jesson, 1989, cited in Barrington, 1991:296). These vested interests in government policy-making had to be reduced while central to the government's new economic approach was its concept of achieving quality of expenditure across all the portfolios (The Treasury, 1987:44-5).

Through the publication of "Government Management, Volume 2", the Treasury presented itself suddenly as an expert in educational issues. The radical changes advocated in both these volumes must be viewed within the context of the Treasury taking advantage of the political crisis of legitimization by using its powerful institutional position to push its ideas to the government, industry, and community alike. According to Grace (1990:17), 'an ideological agenda derived from New Right principles' was demonstrated in the Treasury reports' thesis. Education was seen as a commodity of the marketplace (The Treasury, 1987). The nature of the relationship between the education service and its participants was essentially one of provider and customer and education services would be better provided through the operation of a free market system.

The Treasury's "Educational Issues" publication provoked a reaction from the academic community (Lauder *et al.*, 1988; Boston *et al.*, 1988; Nash, 1988), militating against this influential publication. Some academics pointed out the arrival of the third wave of educational policy-making [see chapter 1] with this document (Lauder *et al.*, 1988). The Treasury's position on education may be criticised for its lack of depth and consistency in terms of its methodological, epistemological, and philosophical approaches (Boston *et al.*, 1988), but most of all for the fact that it simply regards education as 'just' another commodity in the market place.

In analysing the tertiary sector in this document, the Treasury devoted most of its attention to the universities, while in the main ignoring the technical institutes and colleges of education. However, it must be realised that historical facts, and the political and economical realities at that time, seemed to allow for a fair degree of justification for radical policy change *per se*. Evidently, the Treasury, the National Party, the New Zealand Business Roundtable, the media, and the community were all discontented with the provision of public education in New Zealand for different reasons and to varying degrees (Grace, 1990). They all contributed, depending on their position and their degree of involvement and power, to the genesis of a new era. Like the Treasury, the State Services Commission contributed to education policy change as it argued, in its advocacy of public sector reform, that it was unable to give special treatment to education because of its special needs (Peters *et al.*, 1994). Even though the Labour party was reelected to office, the New Right's challenge had ultimately succeeded, and was henceforward legitimised in new legislation. In order to understand this policy outcome a number of reports will be analysed below, of which the Picot and the Hawke Reports are the most seminal ones.

"Administering for Excellence" (henceforward, Picot Report), the report of the Taskforce to Review Education Administration, was released in April 1988. It criticised the existent administrative structure as overcentralised (and therefore subject to pressure group politics) and overly complex by having too many decision points. Furthermore, it noted

that effective management practices were lacking and the information needed by the people in all parts of the system to make informed choices is seldom available. Almost everyone feels powerless to change things they see need changing. To make progress, radical change is now required (Department of Education, 1988a:xi,23).

The report emphasised that mere tinkering changes would be insufficient to overcome the inadequacies of the present system (*ibid*, p.36). Some of the most important recommendations made in the Picot report were that decisions should be made as closely as possible to where they are carried out, which needed to be underpinned by the establishment of lines of accountability and authority, and national educational aims. Consequently, the individual learning institutions would be the basic unit of education administration but would be held accountable by an independent Review and Audit Agency for meeting aims and objectives set out in a charter while the running of the institutions would be a partnership between the teaching staff and the community (*ibid*, p.xi).

The underlying aim of these specific proposals was to develop a system of education provision that would be closer to the direct influence of the community, whereby it could be ensured that the negative effects of an intervening bureaucracy were minimised, which was in agreement with the Treasury's aim of minimalist state intervention (The Treasury, 1987). In addition, the new system was perceived as potentially more flexible. The Picot Report also supported the establishment of a national validation authority, the establishment of which was decided by the Cabinet Ad Hoc Committee on Employment and Training on 29 October 1986 (Cabinet Ad Hoc Committee on Employment and Training, 1986), and further discussed by subsequent committees (see also chapter three (29)).

The Picot taskforce had identified two aims around which the new administration system was to be built: first, every learner should gain the maximum individual and social benefit from the money spent on education and second, education should be fair and just for every learner

regardless of their gender, and of their cultural or geographic circumstances (*ibid*, p.3). The new structure would display a number of essential features, *i.e.* simplicity, decisions made at appropriate levels, national aims, co-ordinated decision making, clear responsibilities and goals, control over resources, accountability, openness and responsiveness (*ibid*, p.41).

The report's recommendations reflected overall dissatisfaction with the performance of the education system in New Zealand as well as with the ongoing ideological struggles the country was submerged in at that time. A key criticism of the current system was made by Dale (1992:7), who asserted that the education system was run in the interest of the 'producers' rather than the 'consumers', and that advice from the teaching profession inevitably was self-interested and could therefore be discarded (Lauder, 1991:423).

In a rather unprecedented move, the New Zealand Employers Federation, the New Zealand Council of Trade Unions, and the Association of Polytechnics in New Zealand made a joint submission (NZEF, 1988) to the Minister of Education in which they expressed their concerns at serious shortcomings in the Picot Report's treatment of the tertiary sector, and 'its lack of recognition of the role of central industry and provider bodies in policy formation at national level in a reformed system of post-school education and training'. They further stated their support for both an integrated tertiary system and a national vocational qualifications body on which they wished to be represented (*ibid*).

The Picot Report can be interpreted as an attempt at appeasing political criticism from both the left and the right. Nonetheless, the New Right's educational views were 'endorsed' in the report by its recommendation to rationalise the education administration system to the extent that education on a local level actively participates in the market

place. The report responded to criticism of the 'ideological left' by the two aims it set for the new administration system as mentioned above. These responses were glossed over by Picot's conclusion that the reforms could have positive, beneficial and exciting social and economic consequences (Department of Education, 1988a:98). Overall it was a prescription for change that appealed to the Neo-Liberal ideological position of Lange (McCulloch, 1990). A first decisive step towards steering the reform recommendations on the perceived ideological track was Prime Minister's Lange's decision to appoint himself as the Minister of Education in the new Labour cabinet of 1987, an action highly indicative of the importance accorded with education in the new government's political agenda.

In his attempt to compromise between the extreme ideological positions of both left and right, Lange was underestimating the perseverance and growing influence of the New Right's economic and educational policies in New Zealand society. Like all the other policy areas, *e.g.* health and social welfare, the dominance of a market-led approach manifested itself in a drive towards the commodification of public goods.

The ministerial statement of intent "Tomorrow's Schools" saw most of the Picot recommendations approved for implementation (Lange, 1988:1-2). October 1 1989 was designated as the date for system-wide change at the centre; governance at the school level was to be implemented by the board of trustees of each school from 1 February 1990, on the basis of a 'charter' agreed with the new Ministry of Education. Individual institutions, now the central unit of educational administration, were given a wide range of responsibilities, especially in the area of staffing, resource allocation, and support services (Rae, 1990:59). Although responsibilities were now devolved, control of the system continued to be centralised with government agencies, like the Ministry of Education and

the Review and Audit Agency in 'the form of tightly circumscribed limits and constant surveillance' (Codd, 1990:204), and setting the national aims for the system.

Codd *et al.* (1990b) argue that "Tomorrow's Schools" was the product of a particular set of historical, economic and political forces. They summarised the government's policy as a policy that was formed at a time when the New Zealand state's capacity to promote redistributive policies was severely limited by a crisis of capital accumulation (*ibid*). Behind an ideological 'free market' rhetoric of devolution and efficiency, the two pillars underpinning Picot's recommendations, a policy had been formulated that ensured the State's control over educational expenditure, the depoliticising of public education provision, and the reiteration of the problem of 'provider capture'. In conjunction with the tightening of the government's control over state education, a strategy of transporting the legitimisation crisis to the local level was applied (*ibid*, p.15). The responsibilities, deliberately couched in terms like choice, were handed down from the State to the providers and the community. In other words, the State was adopting a minimalist approach.

Consequently, Geoffrey Palmer, the Deputy-Prime Minister, had the idea of setting up a number of working parties which were to look into the major issues of social policy. For education an independent working group was to be set up, not a ministry one, as 'the idea was to get away from consensus, and to get focused on things that actually needed government decision' (Hawke, interview, 1994). Professor Gary Hawke was asked by Palmer to convene a working group on post-compulsory education and training (PCET), which was established in March 1988 as part of the government's social policy reform. David Hood was seconded

from the Department of Education to the working party as its executive officer.

The working group had as its task to comprehensively review the post-school sector, which would draw from and build on a number of reviews already conducted in a number of specific areas (28). The terms of reference were established by the Cabinet Social Equity Committee (CSEC), and focussed on the present and the possible future roles of the government in PCET, while particularly having regard to equity and efficiency issues (Hawke, 1988:102), which were also determining the economic agenda (The Treasury, 1987).

PCET was defined in the terms of reference as 'the plural curricula experienced by persons over the age of 15 and include all state and independent institutions providing formal education and training, and all arrangements for informal, on the job education and training provided by enterprises and other organisations for their employees' (Hawke, 1988:14). The tone of the working group was set by the fact that government saw social policy as its prime activity from 1987 to 1990, and that 'it was something that had to be dealt with very quickly in 1988' (Hawke, interview, 1994). Another impetus given to the working group was the key issue of transition from school to further education and/or employment, which flowed on from the Picot report.

The Hawke Report recommended, in line with the Picot proposals, a considerable degree of decentralised decision-making for PCET institutions, for which an improved funding system was required, as this was expected to result in greater economic efficiency (Hawke, 1988). A Ministry of Education and Training was proposed to ensure a coherent approach to policy formation and implementation across all education and training, which would signal the CSEC Working Group's view as to the

importance it attached to the concept of lifelong learning and the importance of 'on-job education as well as institutional learning opportunities' (Hawke, personal communication, 1996). And under this proposal, the responsibility for apprenticeship would be transferred to a section of the proposed Ministry and would see the status of industry training in the overall education field increased (Hawke, interview, 1994).

This across-the-portfolio approach was complemented by the proposal of a system of national educational qualifications that would allow for enhanced flexibility of and accessibility to learning (Hawke, 1988). This was reinforced by the view that distinctions between education and training should be avoided. These proposals clearly pointed to the development of a concept later to be known as the seamless education system. The working group also believed that the government should aim for providing access to education and training for all New Zealanders and it should remain the principal funder of PCET.

The report further recommended the abolishment of organisations such as the Vocational Training Council, the University Grants Committee, and the National Council for Adult Education (*ibid*, pp.10-11). In their place a National Educational Qualifications Authority (NEQA) would consist of three separate bodies, *viz.* the Secondary Education Qualifications Board, the National Vocational Qualifications Board, and the National Academic Awards Board, which would respectively co-ordinate national secondary, vocational, and advanced academic qualifications (*ibid*, p.11). The polytechnics' role in the education and employment sectors was affirmed as important, and it was contended that polytechnics should be allowed to offer appropriate courses at degree level (*ibid*, p.12). Accordingly, the senior secondary school should be able to offer a variety of post-school pathways to its students within the new system.

The Hawke Report accentuated the fact that for acquiring entry qualifications for a trade or profession, the attainment of appropriate standards was seen as more important than an emphasis on institutional organisation (*ibid*, p.16). This was a further indication of a thrust towards increased flexibility in terms of course access and delivery, and skill recognition. Some of these skills required in working life would increasingly be achieved outside the formal education system which would become a larger part of total education and training (*ibid*, p.17).

The government's aim to increase the levels of participation in PCET (OECD, 1983) resonated through the Hawke Report. Thus, its discussion of the notion of a compulsory 'educational leaving age', required students up to some age limit (the age of 18 was given here as an example) to stay on in education or training, which would also be a means to promote systematic industry training (Hawke, 1988:22). However, it was recognised that compulsion might prove an artificial solution to the problem and enhanced access to courses, and the provision of a structure encouraging learning mobility, were deemed more favourable options.

The Hawke Report envisaged NEQA being a 'federal' organisation with the three boards assuming responsibility for specifying national standards in their sectors: each board would also have course approval and validation powers. The bringing together of the validation system in one place was considered desirable by the CSEC Working Group (Hawke, interview, 1994) in order to rationalise the plethora of existent examining and certification bodies but it was proposed that validation and accreditation should be voluntary.

The National Vocational Qualifications Board (NVQB), in replacing the NZTCB and the AAVA, would play a leading role in identifying training needs and defining learning outcomes, but would have no role in curriculum development (Hawke, 1988:54). The NVQB would, after a

lead-in time, become a cost-recovery body but it should not itself be an examining body (*ibid*, p.57).

As regards apprenticeship, the Hawke Report endorsed apprenticeship to be separated as far as possible from industrial relations issues, and that the conditions of employment had to be negotiated between unions and employers, instead of national apprenticeship committees chaired by government officials. It also was in favour of a move from 'time-served' training to demonstrated competence, a simpler structure of national and local apprenticeship committees and the proposed Ministry of Education and Training taking responsibility for apprenticeship policy (*ibid*, pp.93-5).

The Hawke Report was strongly supported by the Employers' Federation for its move towards a competency-based assessment and training system, based on national standards (NZEF, 1988). The Employers' Federation also favoured the broadening of apprenticeship into a system covering a wider range of industries and occupations. However, the Federation commented that government did not fully recognise the fact that 90% of industry training was done on-the-job at the employers' expense, and so the employers presented themselves as a major stakeholder in vocational education and training (*ibid*).

The Association of Polytechnics in New Zealand (APNZ) appraised the Hawke Report's recommendations favourably, and found it largely consistent with those of the Probine/ Fargher and Picot Reports as regards the desirability for devolving administrative responsibilities to the local level (APNZ, 1988). APNZ believed that the validation of post-school qualifications would be better handled by a single board, instead of by separate bodies, both under the proposed NEQA structure. It argued that no useful purpose was served by differentiating qualifications into 'academic' and 'vocational', as both were in their very essence work-

related (*ibid*). The Association did not concur with Hawke's proposal to pass on the examining functions of the National Vocational Qualifications Board to the polytechnics, seeing it as non viable; it counterproposed that the NVQB should retain some of the examining functions.

Although Hawke (interview, 1994) believed the Picot Report was more important than his document in the overall scheme of educational reforms, the Hawke Report was not only significant for its PCET-specific recommendations, but also for legitimising the proposed sectoral changes within the context of government's New Right-driven social and economic agenda.

Hawke recommended that the government implement the policy changes in the 1990 teaching year, which concurred with the government's expected implementation of the Picot Report recommendations, thereby creating a very tight timetable. In February 1989, the government released "Learning for Life", a document of intent, in response to the Hawke Report, which was followed by "Learning for Life: Two" in August 1989, containing the same text, but complemented by additional policy decisions. For that reason only reference will be made here to the latter document.

In "Learning for Life: Two" the government set forth its intention to approach all education and training as a single policy continuum (Ministry of Education, 1989b:7). Some of the principal features of the reformed PCET system are decentralised decision-making; a new approach to funding, including an increase in the proportion of private funding in post-school education and training. NEQA was to provide an across-the-board approach to validation and qualifications, while greater participation in post-school education and training was to be encouraged through removing barriers to access as well as excellence promoted in

PCET. And lastly, the setting up of a Ministry of Education, which would have responsibility for policy advice on education and training, was announced (*ibid*, pp.8-9).

By intending to implement these measures, the government was committed to remedy an education system failing its country, which it characterised as regulated, complex, incoherent, unresponsive, partial, unaccountable, and vulnerable to pressure group politics, among other properties (*ibid*, p.10). Moreover, the government in recognising the value of education and training to both the nation and the individual, declared that the system should become more accessible and affordable for New Zealanders (*ibid*, p.12), with which declaration it strove to meet its twin objectives of equity and effectiveness.

The main policy decisions found in "Learning for Life: Two" resembled the restructuring principles applied in the school area, as decentralised institutional management was extended to PCET providers. Qualifications were no longer regarded by the government as 'gate-keeping' devices, but, on the contrary, as enabling students to advance themselves (*ibid*, p.13). In this new environment, some responsibilities are to be devolved to post-school providers, which, for example, gives them freedom as to how to teach and assess students, and includes increased freedom in institutional management (*ibid*, p.16). On the other hand, these must be accounted for through a system of charters, corporate plans, bulk funding, in order to ensure accountability.

The government announced the establishment of a national validation body, NEQA, which would operate as 'a policy advisory body with operational responsibilities for qualifications' (*ibid*, p.44). The NEQA Board would be the co-ordinating policy body, and also a source of policy advice to the Minister of Education (*ibid*, p.46). NEQA's main functions

were described in this document, and these have not changed much subsequently; they will be discussed in the next chapter.

"Learning for Life: Two" further announced the establishment of the Education and Training Support Agency (ETSA) to which the function of apprenticeship administration would be transferred as this was previously the Department of Labour's responsibility. In "Learning for Life" this free-standing agency was proposed as the Training Support Agency (Ministry of Education, 1989a). ETSA would further administer the ACCESS scheme. A third body the government announced setting up in "Learning for Life: Two" was the Vocational Guidance and Careers Advisory Agency, which had its name changed first to Quest Rapuara, and then to the Careers Service. Furthermore, a Post Compulsory Education and Training Advisory Council, advising the Minister of Education on the new administrative structures was introduced.

The post-Picot era saw a number of reports commissioned by the government which all adhered to the policy direction mapped out in the Picot report. Both "Today's Schools" (Ministry of Education, 1990b) and "New Zealand Schools" (Sexton, 1990:95), for example, criticised the 'centre' for clawing back much of its responsibilities and power, and stressed that the main objectives identified in the Picot Report needed to be achieved in New Zealand education, *i.e.* devolution and efficiency. Sexton (1990:2), in support of the New Right's economic policies, asserted that education is primarily the responsibility of parents and not the State, whereby he invoked monetarist theories to be applied to education. In his views, schools would become self-managing, and there would also be increased competition and eventually full privatisation.

The post-Picot reviews of New Zealand education displayed recurrent themes aimed to condition the public and the professional sector to accept the structural changes in education advocated in the various

government commissioned reports. This concerted effort from the New Right resulted in increasing popular support for the education system to be overhauled, and subsequently changed. Porter contributed to a greater degree of acceptance of the New Right's monetarist philosophies through his highly critical research into the New Zealand economy (Crocombe *et al.*, 1991).

However, where a part of the population may be convinced that the structural changes have been carried into effect for better educational administration and provision in this country, critics have pointed at the limitations of administrative reform. For instance, no reference was made to the quality of education, social equity or democracy in the Picot Report (Lauder, 1990). It is also unlikely that the Picot plan will appease or satisfy radical left critics who fear an even stronger involvement of the New Right in the whole spectrum of education, *e.g.* the curriculum, as social (and educational) policies have been purposefully subordinated to the dominance of a monetarist-driven government agenda. The New Right, in the view of Lauder (1987), is using economic arguments to effect, simultaneously, fundamental economic and social change.

In 1989, the Education Act came into force, by which years of education review came to a conclusion. The result was the initiation of a new style education administration in New Zealand, which was in the main based on Picot's recommendations. The key element of this Act was that the responsibility for controlling and managing state schools was devolved from the central structure to the board of trustees of an individual school. Charters were to be used as an accountability measure (NZ Government, 1989) but could also be regarded as a symbol of partnership between each school, its community, and the Ministry of Education (Barrington, 1991). The boards became responsible for financial

expenditure and they received a bulk grant from the Ministry of Education.

The Act was amended in 1990, introducing a number of Crown agencies, such as the New Zealand Qualifications Authority (NZQA), the Education and Training Support Agency (ETSA), and the Career Development and Transition Education Service. NZQA's role as defined under the Act was to establish a consistent approach to the recognition of qualifications in academic and vocational areas, whereas ETSA was charged with the statutory function to administer the ACCESS training scheme, the apprenticeship scheme, and the primary industry cadet scheme. The Careers Service was to provide both information to the public on occupations, and courses of study/training and careers advice and counselling, and to promote transition education.

In its briefing paper to the incoming National government in 1990, the Treasury asserted that although recent education reforms had been successful in terms of ensuring 'better performance from money spent' (The Treasury, 1990:129), it considered further improvements a necessity. It was contended that the "Tomorrow's Schools" reforms did not remedy the problems of choice, efficiency, and equity and therefore, it was argued, students, parents, and competitive private providers should have a bigger say in those areas. This position clarified the New Right's agenda to further commodify public education, while at the same time aimed to reduce the role of government in this sector.

The Treasury paper expressed concern also about the findings of the Planning Council's report "Tomorrow's Skills", which showed that 46% of the workforce had no formal qualifications and that 60% lacked a tertiary qualification. When calling for a more effective investment in workforce skills needed to secure a high-wage, high-employment economy (*ibid*), it alluded to the necessity of further deregulation and marketisation.

Subsequently, new legislation was introduced, *viz.* the Employment Contracts Act in 1991, and the Industry Training Act in 1992, and undoubtedly more is to come.

A SUMMARY OF REFORMS

The previous two sections specifically focussed on education reforms, and discussed in brief its part in the government's social and economic agenda, because any review of education and training without reference to its broader setting is *a priori* deficient.

The incoming Labour government in 1984 had a clear goal in mind, which was to restore the competitiveness of New Zealand's economy at a time when it was in severe crisis. Its economic management programme based on monetarist economics sought to achieve increased efficiency and accountability which, as operational concepts and philosophical aims, were applied to all sectors of society. Thus, one of the sectors thoroughly reviewed was education and training. All its sub-sectors were examined in accordance with terms of reference linked to the government's social and economic goals. The reviews ultimately culminated in radical legislation which laid the basis for a changed approach to the structure, provision, and purpose of and the responsibility for education and training in New Zealand.

In this New Right environment, government departments have withdrawn by and large from their operational responsibilities, and focus on the provision of policy advice to their respective ministers. The result is that the devolution and decentralisation of operational power from the central body to the local level empowers the community. However, it can be argued that this is also a measure deliberately put in place to depoliticise the highly political arena of education. Hence, while the role of the government in education seemed to have been diminished

considerably, its centralist power is clearly expressed through policy work conducted in the areas of qualifications, curriculum, and industry training by some of the new Crown agencies and the new Ministry of Education. In most decision-making areas, as Barrington (1991:308) states, the central government still exerts its dominant influence.

Another reality is that education and training have been subject to a process of commodification and rationalisation during the last decade, which was enunciated by the introduction of a regime of charters, user-pays, and contestability. The pressures for accountability for expenditure and management, as well as those for choice have been transported to the local level, and with it the legitimisation crisis (Codd *et al.*, 1990b:26). Codd, Gordon, and Harker plausibly argue that 'although devolution claims to produce greater flexibility and responsiveness, it also creates a structure in which decisions can be more effectively controlled' by the government (*ibid*). A central question to be asked in this context is whether the government's decisions based on the Picot's and Hawke's proposals will be able to deliver equitable and effective solutions to problems identified in the education system prior to 1984.

The next chapter provides a detailed discussion and analysis of reforms in the qualifications, curriculum and industry training areas, and will focus mainly on the PCET area.

NOTES

1 By 1939, there were 1,356 adult apprentices to trades, mainly in carpentry, joinery, and brickmaking (Kirby, 1956:56).

2 Holland stated in his address that 'we have been drifting into a very simple error. The gap between the reward for unskilled and skilled labour is too narrow, and for young people leaving school there is too little incentive to go through a long period of apprenticeship. In many cases, they enter 'blind alley' occupations because they can get adult wages long before they would have been out of their apprenticeships. The New

Zealand system should reintroduce that incentive for men to learn occupations' (Kirby, 1956:59). Problems of attracting young people to an apprenticeship is a recurrent theme as documented earlier in this work.

3 The Commissions's report refers to the expectation, derived from the introduction of the 1923 Apprentices Act, of approximately ten thousand apprentices annually ensuring an adequate supply of skilled workers. In fact, on average 2,314 apprentices came within the scope of the Act for the period 1936-44 (The Commission of Inquiry into Apprenticeship and Related Matters, 1945:5). In 1948 the number of apprenticeship contracts was 12,501, which increased to 25,171 in 1981 (Bolger, 1981:22).

4 Through credentialling, the status of apprentice training would increase in value and in public recognition (The Commission of Inquiry into Apprenticeship and Related Matters, 1945:13).

5 The apprenticeship committees consisted of representatives of employers and workers, with the chairperson being conversant with technical education. There were 29 New Zealand Apprenticeship Committees, and 205 local Apprenticeship Committees (McQueen, 1960:1).

6 The New Zealand Apprentices Act does not apply to the public service. Public sector apprenticeship is provided for in the State Services Act of 1962, the Post Office Act of 1969, and the 1949 Government Railways Act. In this account of apprenticeship in New Zealand, no specific attention will be paid to either public sector apprenticeship, maritime apprenticeship, or primary industry cadetships.

7 The New Zealand Motor Trade established the first Apprenticeship Committee under the new legislation. This Committee's apprenticeship order required technical school attendance, and the employers to pay for instruction fees. These requirements set the benchmark for all 21 trades committees established by 1952 (McKenzie *et al.*, 1990:38).

8 The NZTCB worked closely together with other statutory bodies, such as the Electricians' and Plumbers' Registration Boards and the Motor Trade Certification Board. It co-jointly conducting trade tests with the latter Board, and administered the trade examinations on behalf of two former bodies (Vocational and Industrial Training Board of Singapore, 1981:121; NZTCB, 1965:6).

9 See the NZTCB trade prescriptions, *e.g.* fitting, coach painting, and turning and machining.

10 Certificates are not essential in the other trades, but examinations are open to those who wish to have their attainment of trade skill and knowledge certificated.

11 Dr Bernard Lee, an Englishman, who was appointed to the post of superintendent of technical education in New Zealand in the late 1940s by Dr Beeby, the Director of Education, was of the opinion that responsibility for practical training was never been explicitly accepted by government, although implicit acceptance may be inferred from the Department's

provision of accommodation and equipment, which was beyond what was needed (Lee, 1970:4).

12 Appendix to the Journal of the House of Representatives, E-1, 1956:26 quoted in Kirby, 1956:145;

13 Some courses were also offered by selected secondary schools, and in government training institutes, like the Forestry Training Centre (Dakin, 1973:90).

14 The 10,000-hour term has not always been strictly adhered to, because as an apprentice was capable of learning the trade in less the time required, this would be found acceptable (McQueen, 1960:3; The Commission of Inquiry into Vocational Training in New Zealand, 1965:12).

15 In some of the interviews this 'hit and miss' approach was described as 'sitting next to Nellie', or as phrased in the Tyndall report 'learning by contamination' (The Commission of Inquiry into Vocational Training in New Zealand, 1965:13).

16 A whole range of different specialised secondary schools had developed in New Zealand over time, which can be classified in three broad categories: secondary, technical, and combined, concurrently displaying degrees of homogeneity and heterogeneity between them (The Commission on Education in New Zealand, 1962:216).

17 At the time of the inquiry, New Zealand had a volume of under 24,000 apprentices (The Commission of Inquiry into Vocational Training in New Zealand, 1965:11).

18 This recommendation was in part based on the Commission's own observations, and in part the concept was already signalled in the Currie report. The Tyndall Commission did not want to commit itself to this concept without first probing its feasibility.

19 The rationale for this proposal lies in the fact that many trades have become more technically complex, which increasingly requires a greater content of theory taught during the apprenticeship.

20 The council worked mainly through 26 industry training boards and 10 Major Group Schemes (VTC, 1978:5).

21 Other committees and working parties which were established covered the clerical and commercial, institutional, management and supervisory training areas, as well as working parties for training for Polynesians, women, and the training of trainers and instructors (VTC, 1976:2);

22 Approximately 30% of all apprentices commencing their term do not complete their contracts, with lapsed contracts being heaviest in the first year of apprenticeship (VTC, 1978:22).

23 The initial training stage would consist of three development units, after which two or three advanced units can be taken (VTC, 1978:36). Extra units can be added as required (VTC, 1980b). One of the advantages of this

scheme is that it has the potential to ease the transition from school to work, as final career decisions can be postponed;

24 DACUM originated in the mid 1960s in the United States of America. The method is based on three premises, *viz.* that people currently doing a job are the best judges of it; all jobs can be described in terms of the tasks that make them up; and, all the tasks are underpinned by skill, knowledge and attitude (Burleigh, 1989:226).

25 Overseas developments referred to here entailed a conservative revival in education policy in the United Kingdom and the United States of America, which embraced the concepts of 'quality', 'choice', and 'accountability'.

26 About 80% of the institutional workload was in vocational education (Probine and Fargher, 1987:i); 20% was in the promotion of education for personal enrichment (*ibid*, p.3).

27 In the next chapter a brief account of the development of the idea of a national validation body into its present structure will be given.

28 These areas included the university sector (Watts report); the polytechnic sector (Probine/Fargher Report); the Royal Commission on Social Policy; the Beattie Report on research; the Tertiary Review (Report on Submissions to the Tertiary Review), and the Shallcrass Report on non-formal education.

CHAPTER 3 VOCATIONAL EDUCATION AND TRAINING IN NEW ZEALAND TODAY

AIMS AND POLICIES IN VOCATIONAL EDUCATION AND TRAINING

The purpose of this chapter is to describe and analyse the current state of vocational education and training (VET) in New Zealand. However, this will not be possible without making reference to both the recent antecedents and developments that have helped to shape the system as it is organised and structured now (1). In this context it is important to present an analysis of the origins of the 'competency movement' in New Zealand VET which will be complemented with a discourse on the origins of the New Zealand Qualifications Authority (NZQA). Both are issues that have already been alluded to in the previous chapter but which require further appraisal in the light of their centrality for this thesis (2). The last section of this chapter deals with the qualifications and curriculum frameworks, while school-based or internal assessment will be a topic of analysis in chapter four.

In late 1984 a Committee of Inquiry was established by the Minister of Education, Russell Marshall, comprising representatives of government departments, the Employers' Federation and teacher unions, which was asked initially to look into the issue of the implications of the removal of the University Entrance examinations from Form 6, on which it reported to the Minister of Education in 1985. Upon completion of its first report, the committee extended its scope of inquiry by reviewing the existing arrangements that were in place for curriculum, assessment and qualifications in Form 5 to 7 of general education and recommended that radical change was necessary and imminent (Department of Education, 1986).

The committee's second report, "Learning and Achieving", commissioned by the government of the day and published by the Department of Education in June 1986, is generally regarded as having had a significant bearing on the subsequent policy developments in the area of school and post-school curricula and qualifications (NZQA, 1994f; Woods, 1992).

One of the main concerns expressed by the 1984 committee in its second report was that a high percentage of students leaving school had no formal qualification (see figure 3.1 below) and it was believed, therefore, that the prevailing system of assessment and certificates, which was established in the 1940s, needed to be adjusted in order to meet the needs of modern-day society. Of particular concern was the built-in failure rate for students sitting their Form 5 examinations, for this was generally perceived to be an outmoded and unnecessarily harsh selection criterion for further study and career opportunities (Lennox, 1995; Lee, 1989; cf. Department of Education, 1986). One particular aspect that appears to have influenced the committee's thinking significantly, was a discernible trend of students remaining in school after compulsory education, which was seen as constituting a direct response to changing employment patterns

TABLE 3.1

HIGHEST QUALIFICATIONS OF SCHOOL LEAVERS IN 1984 AS PERCENTAGES OF TOTAL	
Entrance Scholarships	0.3%
University Bursaries	9.3%
Higher School Certificate	5.3%
University Entrance	15.4%
Sixth Form Certificate	13.0%
School Certificate (3 or more subjects)	11.1%
School Certificate (1 or 2 subjects)	12.2%
No formal qualifications	33.3%

Adapted from: Department of Education, 1986:28

(Department of Education, 1986). However, a growing proportion of those students had no intention of pursuing higher education (NZQA, 1994f). A third factor was New Zealand's relatively low participation rate of 45 percent of 15 to 19 year-olds in comparison with the other OECD countries (OECD, 1983).

The committee noted also what it regarded as New Zealand's undue preoccupation with national public examinations of which there were four in the final three years of secondary education: School Certificate, University Entrance, University Bursaries and Entrance Scholarships (3) and, therefore, proposed significant changes to learning and achievement documentation at senior secondary school. Several submissions to the committee suggested reintroducing technical high schools (see chapters two and five) but, after consideration, this was considered 'educationally unsound' since it would be likely to perpetuate socio-economic divisions in New Zealand (*ibid*, p.50).

The committee, on the other hand, strongly favoured greater flexibility in the provision of courses at senior secondary level and expressed the view that it would like to see less rigid boundaries separating the many institutions providing education at the post-compulsory levels. The committee was especially taken by the principles underpinning the Scottish modular learning approach and proposed a detailed scrutiny of their system for a possible though selective emulation (*ibid*, p.52).

The main recommendations put forward by the Committee of Inquiry to the Minister of Education were the inclusion of achievement-based assessment in the national curriculum; the availability of a wider choice of courses and learning opportunities beyond Form 5; a National Leaving Certificate to be issued to all students leaving school; the

replacement of external examinations by internally assessed certificates; and, the establishment of a Secondary Board of Studies with responsibility for curriculum and assessment (*ibid*, pp.12-16). The committee's preference for an achievement-based assessment approach to learning was widely supported by both the public and the major role players and was conceived as a way of providing answers to many of the problems inherent in the existing system (*ibid*, p.58; NZQA, 1994f; NZPPTA, 1988).

The significance of the "Learning and Achieving" report is situated primarily in its comprehensive account of the problems associated with the provision of education at the senior secondary school. The committee's proposal to make radical changes in the approaches to education and training were echoed in a number of government commissioned reports which were released in the ensuing three years (1986-1989), and would ultimately lead to the implementation of a radical restructuring of education and training.

In their 1986 'Green Paper', a draft officials' paper, the Departments of Education and Labour jointly investigated the aims and organisation of vocational education and training in New Zealand (4). In the view of the two departments

Vocational education and training should be available in all sectors of the economy, at all levels of skills and responsibility, as a bridge from school and throughout life. It should be available as a continuing process from trades and technician training through to university level professional training (Departments of Education and Labour, 1986:2).

The draft report noted that there was an absence of clear and consistent standards for training for many occupations and, consequently, the departments came to advocate a new approach to VET which was to be based on the principles of economic growth and productivity, personal development and equity (*ibid*, p.1). One of the key features of this newly

conceptualised training system was that the courses and assessment were to focus on 'demonstrated competency to perform the required tasks to the established standards' (*ibid*, p.39), which entailed a decisive move away from time serving, and norm referencing, towards a criterion-based training and assessment regime.

The departments envisaged that any new system should allow for greater flexibility in terms of course delivery and organisation, teaching methods, learning environments and entry prerequisites, while another important element was the inclusion of a provision for cross-crediting since the lack of horizontal and vertical links in the existing VET system was deemed costly and inefficient.

In the face of the changing economic conditions in the 1980s, it became apparent that the nation's training system had to undergo drastic adjustments in order for New Zealand to remain a viable economic competitor in the global market-place. As a logical consequence, investment in training and the upskilling of the workforce were emerging as government policy priorities, a move which was compatible with overseas developments (*ibid*; Callister, 1990). A closer alignment of the education and employment sectors was considered necessary so as to enhance education's responsiveness and relevance. An important step towards achieving these aims was taken by the Cabinet Ad Hoc Committee on Employment and Training meeting held on 29 October 1986 when the decisions were made that

- management and control in continuing education should be decentralised except where there is a particular reason to maintain central control;
- there was no need for a statutory body to conduct training needs identification, develop prescriptions or undertake certification and that the present bodies carrying out these functions be dismantled;
- an independent validation authority be established to endorse the certificates provided by others;

- any validation, prescription development, training needs identification, or examination activity carried on by any government agency should be on a voluntary basis, funded either on a contributory or commercial basis, and that
- any future system of oversight in the area of continuing education ought to have:
 - flexibility offered by validation rather than prescription;
 - close contact between any validating authority and training providers;
 - assessment by achievement of competence rather than time served, and
 - flexible certification that permits cross-crediting (Cabinet Ad Hoc Committee on Employment and Training, 1986:2).

In retrospect, the visit of Russell Marshall and the Assistant General-Director of Education, J.A.Ross, to the Scottish Vocational Education Council (SCOTVEC) in 1985 to examine the developments in the area of post-compulsory education, and in particular the Scottish 16+ Action Plan, was of considerable importance in the formulation and the development of PCET policy in New Zealand, as the Scottish training system was singled out as an overseas exemplar for comprehensive analysis (5).

The Scottish scheme sought to establish a student-centred modular learning approach, in which students are given greater responsibility over their own learning within a framework characterised by a range of entry and exit points plus the possibility for retention of credits for earlier achievements. Assessment, in this new system, is based on specified performance criteria and a single qualification, the National Certificate, replaced all existing non-advanced vocational education qualifications (Department of Education, 1987a:2-3).

New Zealand's interest in the Scottish system seems to have derived mainly from the fact that the situation in both countries was not too

dissimilar in terms of the issues and problems each of them were encountering in the area of post-compulsory education and training at that time. Furthermore, the two nations had populations which were of a comparable size. Both countries were subscribing to the idea that the separation of education and training was a false dichotomy and, consequently, were investigating ways and measures that would bring about a closer alignment (*The Training Bulletin*, 1986). There was also a further point of comparison, in that Scotland's participation levels in post-

TABLE 3.2

COMPARATIVE PARTICIPATION RATES IN POST-COMPULSORY EDUCATION				
	PARTICIPATION RATES IN 1984			
	16 Years	17 Years	18 Years	19 Years
Australia	77.3	59.2	42.0	37.4
Austria	87.1	83.7	76.5	45.6
Belgium	86.5	75.0	57.0	43.0
Canada	88.6	71.6	42.1	30.0
Denmark	76.0	68.0	61.0	50.0
Finland	87.5	75.4	58.8	34.5
France	83.9	68.9	45.2	30.0
Germany (1)	92.1	89.3	71.9	45.9
Italy	9.1	70.3	51.3	29.4
Japan	94.0	84.0	-	50.0 (2)
Netherlands	97.8	84.7	62.8	43.7
New Zealand	74.4	46.5	32.6	30.9
Portugal	39.2	35.0	34.5	27.8
Scotland	61.8	29.1	12.5	3.1 (3)
Sweden	87.4	78.4	44.7	23.5
Switzerland	85.9	81.6	73.1	52.8
United Kingdom	68.0	52.8	37.0	28.5
United States	94.3	87.1	54.7	40.9

Adapted from an OECD table; based on enrolment rates in full and part-time education in 1984, quoted in Achievement Post-School Planning Committee, Appendix 3, p.4, 1987.

Key: - not available; (1) pre-unification; (2) estimated; (3) see endnote 31.

compulsory education, like New Zealand's, were relatively low by international standards (see table 3.2 above). Scotland's 16+ Action Plan, a policy strategy designed to overcome the stated problems, was therefore an interesting exemplar for New Zealand to consider.

The Chief Executive of SCOTVEC, Tom McCool, was invited by the Vocational Training Council to visit New Zealand in 1987 and during his stay he delivered an extensive number of formal and informal presentations to government officials, representatives of employer bodies, trade unions and senior staff from polytechnics, among other groups, on the Scottish approach to education and training (Department of Labour, 1987:2). The influence of McCool's visit on the direction of the ensuing reform discussions in education and training was considered 'important' (Goff, 1987:2) by some, assessed as 'heightening the debate' (Lythe, interview, 1994) by others, while his regional presentations have been described as 'very well received' (Selwood, 1991:112).

Teachers, on the other hand, were critical of a modular approach to education because, in their view, it could result in a smorgasbord model and they also expressed concern that general education could be in danger of becoming too vocationally specific (Department of Education, 1987a:4). Some trade unionists held the belief that this new approach could culminate in deskilling when adopted in New Zealand, while the employers were generally supportive of the concept of a competency-based modular training system (*ibid*).

A national seminar was held following McCool's visit to discuss the principles on which New Zealand's new system of vocational education and training had to be based. By and large, the principles the seminar agreed to were quite similar to those underpinning the Scottish scheme, in that the new New Zealand system would be developed, monitored and

controlled at all levels in an equal partnership (6) between employers, trade unions and educators, providing a continuum of education and training throughout life with a variety of entry and exit points and establishing a framework that permits flexible transfer between education and training (*ibid*, p.5).

This model would establish a 'comprehensive, rational and proactive as well as a responsive national framework with national standards and a national scheme of certification which could recognise all achievement no matter how modest' (*ibid*, pp.5-6). Moreover, it would employ a student-centred and skills-based focus, and enter upon a performance criteria approach to learning and assessment within a modular curriculum. As a last underpinning notion, it was recognised that the relationships between providers of secondary and tertiary education and training required improvement and needed to become closer (*ibid*, p.6).

The Minister of Education approved a recommendation by the Achievement Post School Planning Committee to establish a short life working group for the purpose of investigating a qualification system based on either some or all of the principles agreed to at the national seminar. In its report to the minister, the committee endorsed all the principles and supported the idea of a system of national certification as being an appropriate response to the concerns in the PCET area (Achievement Post-School Planning Committee, 1987) (7). This report can be seen to have been of some historical significance as the aims and the structure of a new qualifications system became much clearer and articulated (*cf.* Selwood, 1991).

The thrust towards demonstrated competence appeared to be gaining considerable momentum, especially in the trades area as a direct result of the apprenticeship reform process that sought to broaden the whole basis of apprenticeship and explicitly promoted the concept of

competency-based training (Department of Education, 1987c, appendix 3, p.4; Burleigh, 1987) which is outcome-focussed, in that training is deemed complete when apprentices have achieved 'defined standards of competence or performance' (Goff, 1988:8). Instrumental in this gradual development towards a new training approach was that twelve trades, which included furniture, motor and engineering covering 41% of all the apprentices (at the period under discussion), supported and adopted the new training approach (Murray, Wickens, Leitch, interviews, 1994).

And, furthermore, in recognising the growing interest in New Zealand for competency-based vocational training and the implications this may have on curriculum development and evaluation, a 'Towards Competency' seminar was held in 1988 in Wellington where general support was expressed for a move towards a competency-based training system. According to Ray Taylor, then Assistant General-Director of the New Zealand Employers' Federation (NZEf), 'the result of vocational education must be the attainment of competence' (*The Training Bulletin*, 1988:6) and he declared that New Zealand trains 'can-do people' (*ibid*, p.7). The seminar identified a need for more research into 'competence' and workshops on curriculum planning and evaluation methodologies (Wagner, 1988).

In the second half of the 1980s, trade prescriptions were being revised into a competency-based format through a process of DACUM-based training needs analysis and all new prescriptions had to be approved by all the major role players involved (Department of Education, 1987b:15). The Vocational Training Council developed systematic competency-based courses for on-the-job trainers in order to support this move. In this context, it is not unimportant to note that the final trade examinations are/were set by external examiners and moderated by a national committee of user groups.

But internal assessment became an increasingly common feature of the first and second qualifying trade examinations. Whereas stages three and five of AAVA examinations were (and are) externally examined and moderated, it became common practice to assess stage four internally (8). The results of each polytechnic are then assessed against the national results (Department of Education, 1987c, appendix, pp.1-2). A notable example of competency testing in the trades prior to the educational reforms were the typing and shorthand trade qualifications prescriptions in which the performance criteria and the national standards were specified in detail (NZQA, 1990a).

It was in the light of these practices and developments that it became quite clear to the government and interest groups that a continuation of a process focus in vocational education and training was rapidly becoming an unsustainable and outmoded approach and that, conversely, under a national validation body an outcomes approach would emerge (McKenzie, 1987:6) (9). The establishment of an independent validation body which the government was committed to in 1986, and was endorsed by the Probyn/Fargher report, was at that time and in respect to the government reforms 'not a negotiable matter' (NZ Engineering Union, 1988:2). However, the idea of a 'national accreditation authority' (10), a government organisation with similar functions had been recommended much earlier by the New Zealand National Commission for UNESCO (1978). The notion of and a possible structure for a national validation body became the subjects of debate in the post-1986 period.

The Department of Education, after having investigated models of vocational bodies in the United Kingdom, Australia and New Zealand, recommended the establishment of a National Vocational Qualifications Board (NVQB), a body which would have validation, accreditation, moderation and certification functions (Department of Education, 1987c). The extent of these functions of the Board, however, was not uncontested.

Industry, for example, supported the idea of NVQB carrying out all of these functions (*ibid*, p.7) although, contrarily, the Employers' Federation gave preference to the institution of a national certification authority and argued that the principal function of NVQB should be national certification, and not the validation of regional institute examinations or certificates (NZEF, 1988:9) (11). Moreover, the Federation contended at that time that external examinations for the award of trade certificates and other qualifications should be maintained in the new training system, for it would not only act as a counterbalance to an emerging emphasis on provider-based internal assessments (NZEF, 1987b:2) but it would also continue to provide nationally standardised summative assessments (Taylor, 1988:16).

From the perspective of the Department of Education, NVQB could delegate the certification, examination and/or assessment functions to third parties (*ibid*, p.7). However, the Treasury believed that certification should be dealt with separately from validation, as their running together, in their thinking, would present 'substantial dangers of provider capture' (Smelt, 1988:3). According to Smelt (*ibid*, p.4), certification is essentially a provider issue and not a function of a validation body. The latter should be an independent body with broad ranging and output-oriented tasks which 'should go wider than validation of vocational qualifications'.

In a similar vein, the Treasury believed that the accreditation of providers constitutes an input function and for that reason one a validation authority should not necessarily become involved with (*ibid*). The Department of Labour, on the other hand, doubted whether NVQB should issue certificates because it believed that this could lead to an involvement in the training process, such as curriculum development and prescription (Departments of Education and Labour, 1988:6).

It should also be mentioned here that the Department of Education report also supported the inclusion of a provision for the award of

'vocational degrees' in the polytechnic sector, an idea which was borrowed from the Council for National Academic Awards in the United Kingdom and for which there were also similar provisions existing in Australia (Department of Education, 1987b;1987c). The notion of including 'vocational degrees' in a system of national certification plus the Treasury's preference for assigning 'wider validation functions' to a national validation body were relatively early, but clear, indications for the policy direction that would be followed henceforth.

The government's thrust towards the establishment of a single authority for vocational qualifications was based on its decision to rationalise the number of existing certification bodies (some 75) and to provide a national framework for vocational qualifications (Goff, 1988). By setting up this system of national co-ordination the government wanted to achieve an increasingly skilled and flexible workforce for a competitive economy, which was (and still is) its broader policy aim (Richardson, 1992; Ministry of Education, 1994a). As a result of this move, bodies such as AAVA and NZTCB were disbanded as statutory bodies in the areas of vocational and advanced vocational awards but not before the possibility of an amalgamation of the two bodies was considered.

There was some considerable concern in the first half of the 1980s that a substantial proportion of school leavers (29.1% in 1982) were neither continuing their education nor were in employment at all, and constituted a group which 'may not be catered for by either TCB or AAVA' (Coad and Lawrence, 1985:16) while, simultaneously, there was a discernible trend of an increasing social demand for higher levels of education (*cf.* Department of Education, 1987c). Nonetheless, a major concern expressed was that both AAVA and NZTCB have been too slow in updating their course prescriptions in response to industry requirements (Fargher, 1988:1; Department of Education, n.d., p.2).

A review team which examined the possibilities for a closer co-ordination between the two organisations concluded that the labour market could be more effectively provided for with employment-relevant qualifications if they would work closer together (Coad and Lawrence, 1985:17). In their report it was recommended that NZTCB and AAVA remain statutorily independent but be serviced by a common administrative body, a proposal which was endorsed by most organisations, but strongly rejected by the Board and the Authority (NZTCB, 1985:1; Lawrence, interview, 1994).

Although 'the draft review report did not achieve much' (Lawrence, interview, 1994), it confirmed again that a lack of articulation between the certification bodies was untenable in the context of changes in technology, occupations and qualifications and hence their continuation was deemed unacceptable by the government and industry (Departments of Education and Labour, 1988; Griffin, interview, 1994).

In 1987, two public discussion booklets, 'Tertiary Education in New Zealand: Issues and Comment' (Department of Education, 1987d) and 'Further Education and Training: Who Should Pay?' (Ad Hoc Cabinet Committee on Training and Employment, 1987) were released by the Department of Education. The public views on credentials and validation in tertiary education were summarised in the 1988 'Report on Submissions to the Tertiary Reviews', in which the public expressed a high level of support for the key concepts underpinning the education policy intentions of the government (Department of Education, 1988b). The views communicated in the submissions generally consented with the notions of

- transferable and portable national qualifications and a modular learning approach;
- competency-based assessment;
- a national validation body responsible for maintaining national standards and a central certification body;

- a major role for industry with a national validation body, among others, on the basis of which tertiary education it was believed, could be rationalised and restructured (*ibid*, p.151). Although these submissions cannot be regarded as the public's mandate for government policy development in education and training, they clearly appear to approve of a shift taking place towards a more flexible and accessible education system in which national standards are maintained and for which a national body assumes responsibility.

The Picot, Hawke, "Learning for Life" and "Learning for Life: Two" reports (see also discussion in chapter 2) were publicly released in the period April 1988-August 1989. The second and the last of these publications were the most important ones with regard to the government's decisions in the area of PCET. The significance of the Hawke report lies in the fact that it questioned the appropriateness and relevance of maintaining the traditional distinction between education and training (Hawke, interview, 1994). Notwithstanding this, Hawke recommended a National Education Qualifications Authority (NEQA) be established that would consist of three separate and independent sub-agencies, *i.e.* a National Vocational Qualifications Board (NVQB), a Secondary Education Qualifications Board (SEQB) and a National Academic Awards Board (NAAB), thereby perpetuating the separation between secondary, vocational and academic qualifications (Hawke, 1988). In Hawke's view, the main concerns of NEQA and its boards would be

to specify national standards, evaluating courses proposed by providers and endorsing claims that they met those specified standards (and) to accredit providers. The principal concern of the NEQA and its component boards would be with the outcome of educational services (*ibid*, pp.54-5),

and, furthermore, he envisaged that NEQA would:

sometimes be interested in the inputs to a course, but its principal concern is whether a provider is able to supply a learning situation which enables students or trainees to satisfy appropriate national standards (*ibid*, p.55).

According to Hawke (*ibid*, p.54; interview, 1994), the curriculum development function in PCET should be kept distinct from validation, and left to the providers. Validation, on the other hand, concerns itself primarily with the setting and maintenance of national (achievement/competency) standards, a task assigned to NEQA, which is a construction that sets out to accomplish a move away from a traditional curriculum or prescription-dominated approach towards an explicit focus on outcomes or national standards (*cf.* Griffin, interview, 1994). On the subject of certification, Hawke (1988:55) argued that the providers should assume responsibility for this, although he foresaw that in the transitional period the name of the validation body would need to be printed on the certificates too.

In "Learning for Life" and "Learning for Life: Two", the government announced its final decisions on the tertiary education reforms. In "Learning for Life" the creation of a National Education Qualifications Authority was announced, a government body charged with the responsibility for the co-ordination of national secondary-school qualifications, national vocational qualifications, and national advanced academic qualifications (Ministry of Education, 1989a). And it was decided that this body would have tripartite representation in its composition (12). The main functions of the authority were specified as follows:

- to oversee the setting - and regular review - of standards for qualifications in secondary schools and post-school institutions;
- to develop a national qualifications framework in the PCET area;

- to establish policies and criteria to validate courses which are based on nationally recognised qualifications;
- to ensure that New Zealand qualifications maintain international comparability (*ibid*, pp.26-7).

The qualifications authority, the government decided, would adopt a student-centred approach to assessment and learning, including emphasis on the competency of students to understand and apply their acquired knowledge. For an initial start-up period, NEQA would receive government funding while in the schools area it would be partially self-funding but in the PCET area the body was required to become ultimately a totally self-funding organisation. NEQA would have a role to play also in the development of modular curricula, as was stipulated in "Learning for Life" (*ibid*, p.27). The validation of courses by NEQA would be a voluntary requirement except in those instances where national recognition of the qualification was sought.

By setting up NEQA, the government intended to bring about a closer correspondence between the employment and the PCET sectors and enhance the alignment between institution-based learning and on-the-job training (*ibid*). In the period 1987-1989, the notion of a unified qualifications structure for the whole education and training area started to emerge at working parties' meetings (Department of Education, n.d., p.4; Hood, interview, 1994) but was regarded at that time as too radical a departure from the existing system (Hood, interview, 1994).

In "Learning for Life: Two" it was stated that all the board members of NEQA were to be appointed by the Minister of Education which, in the light of the above functions assigned to the authority, is a clear and strong indication of the important role it was expected to play in education and training, an area of considerable public and political interest and contention (Ministry of Education, 1989b:46; Cabinet Ad Hoc Committee

Learning for Life, 1989:2; cf. Ministerial Working Party, 1989). In other words, it was certainly in the interest of the government to ensure 'that the qualifications authority was not everybody's plaything' (Scott, interview, 1994). The report also made clear that NEQA's role with regard to university degrees would involve the monitoring of inter-university validation and moderation procedures, and the development of criteria for these activities in consultation with the universities.

A further significant decision was that training needs analyses would become the responsibility of industry, which NZEF had deemed crucial (NZEF, 1987b; Taylor, 1988), with NEQA having the task of merely facilitating this (Ministry of Education, 1989b). In order for NEQA to be able to continue this function, the government decided to transfer the fund previously administered by the Vocational Training Council for conducting these DACUM-based training needs analyses to the Qualifications Authority (*ibid*, p.48).

As announced in "Learning for Life: Two", a NEQA Working Party was formed in 1989 which, under the chairmanship of David Hood, had the task of setting up the Establishment Board of NEQA. All the major role players and a wide range of interest groups were represented on this working party, which had a total of 17 members (Ministerial Working Party, 1989) (13). Eighty-four submissions were received by the working party in response to meetings with interest groups and the distribution of a draft report. The majority of the submissions expressed support for the establishment of 'some type of qualifications authority' (*ibid*, p.4; NZQA, 1994f) that would be in charge of 'an across-the-board approach' to validating qualifications in schools and in vocational and advanced academic areas (*ibid*, p.5). Only the university sector objected to becoming involved with NEQA other than in the aforementioned monitoring task (NZQA, 1994f).

The overall consensus from these submissions was that the intended approach would probably simplify the present uncoordinated and confusing system markedly and enhance the possibility for students to move between institutions and courses. It also endorsed the government decision to inaugurate NEQA as a policy advisory body with operational responsibilities for qualifications (*ibid*, p.6). The NEQA Working Party proposed to government in its final report that the three tier board structure of a qualifications authority, as favoured by Hawke, be changed to a single board accountable directly to the minister as well as five standing committees which would be overseeing secondary, academic, vocational, non-formal and Maori education. The Working Party recommended that the authority be established as a body corporate and not as a department under the State Sector Act (*ibid*, p.51).

AN OVERVIEW OF THE LEGAL-ADMINISTRATIVE FRAMEWORK

In rather unequivocal terms, the New Zealand education reforms have been nothing short of a radical departure from the organisation and structure of education and training in existence prior to the Labour government's adoption of a neo-liberal, supply-driven economic policy approach in 1984 and its continuation in subsequent National administrations. Or to put it differently, these reforms, in the view of Dale and Ozga (1993:71), 'represented little continuity with any of the major discourses of education in New Zealand in the 1980s'. The education reforms which were embedded within the government's broader policy aim of economic rationalisation have arguably led to a change in the very purpose and nature of education and training. This assertion will be further developed in the remainder of this chapter as well as in the next two chapters.

Evidence in support of this perhaps rather presumptive statement is the raft of legislative changes that had been put in place in the period 1986-

1992 to underpin the aim of the government to achieve its economic goals which, in turn, intrinsically affected the shape and direction of its public administration policy. A key component of the policy strategy applied by the government after 1984 was its aim to accomplish market liberalisation by means of a comprehensive deregulation of the private sector. A major concern to the government was that progress in labour market reform was being inhibited by an inflexible national award system that was regarded as a constraint on the development of a more competitive and productive economy. Hence, to assist with remedying this, the Labour Government introduced three major pieces of legislation, *i.e.* the 1986 State-Owned Enterprises Act, the 1987 Labour Relations Act and the 1988 State Sector Act (see below), which all set out to encourage industry and enterprise bargaining by reducing central control and constraints (Deeks *et al.*, 1994; *cf.* Trotter, 1986).

After the elections in 1990, the incoming National Government realised that the Labour Relations Act continued to dictate the industry bargaining structure and therefore introduced the Employment Contracts Act in 1991 which aimed specifically at promoting 'an efficient labour market' (NZ Government, 1991a:3). It was claimed by the then Minister of Finance to be a key piece of legislation which would lead to economic recovery (Anderson, 1994a).

However, both domestically and internationally, the Employment Contracts Act has been the subject of some considerable criticism as it intentionally discouraged collective bargaining (Anderson, 1994b) and in effect 'sidelined' the trade unions by removing them from the statutes and hence extended the authority of management (Foulkes, 1992:11; Doherty, 1993:3). However, it should be noted that although the Labour Party was historically a party of the welfare state and a proponent of economic regulation, it became essentially a party of the New Right after ascending to power in 1984, because it embraced the same *laissez-faire* and

monetarist policies as the National Party (Jesson, 1992:38). Thus those political parties which have been in power since 1984 have adopted and sustained a market liberal approach to the economic and fiscal crises which, in passing, was a policy response broadly consistent in the OECD countries (Boston, 1992).

In general comparative terms, a more radical change was introduced in the public sector when the State Sector Act of 1988 came into effect. The Minister of State Services saw the main aim of this Act being 'to bring appropriate private sector practices into the public service' (Rudd, 1992:91). The Act, in the view of Martin (1992), called into question the apolitical nature of the public service and its prime motivation was 'one of improving economic and managerial performance' (*ibid*, p.126).

As a consequence, a managerial mode of administrative operation was substituted for a bureaucratic approach and the chief executive officer of a government department, who is appointed on contract for up to five years on conditions agreed with the State Services Commission, now enjoyed much of the autonomy of the CEOs in the private sector. One of the key features of the Act is that a department now is an employer in its own right, presided over by a chief executive officer who has a performance contract with the minister. Thus, effectively, legislation had been put in place to bring the private and the public sector labour relations systems much closer together.

The 1989 Public Finance Act is a corollary of the State Sector Act in the sense that it was instituted with a view to reform financial management and therefore complemented the administrative reform focus of the latter. The 1989 Act, and its amendments, specify the minimum financial reporting obligations imposed upon the Crown, departments and Crown entities, such as schools, and include the requirement of a yearly report of financial and non-financial statements. The desired results are expressed in terms of outputs for which, in the case of government

departments, the chief executives are responsible. Under the Public Finance Act, the ministers have separate roles: they are 'owners of the departmental business' and they are also 'purchasers of outputs' (e.g. goods, services, policy advice) produced by the departments (*ibid*, p.133).

Their desired results are couched in terms of 'outcome', which is defined as 'the long term impact on, or consequences for, the community of the activities of the government' (Ministry of Education, 1991a:6). The intended result of this legislation, in accord with the philosophy that underpins current education policy, is to increase devolution and operational flexibility, yet is balanced by increased accountability and by performance contracts requirements as well as by extensive national monitoring (Martin, 1992; Gilling, 1995; Fitzsimons and Peters, 1994).

The three pieces of legislation briefly discussed above provide a broad framework that sets the tone and direction of newly legislated education policy. The Education Act came into effect on the first of October 1989, an event heralded by the Ministry of Education (1990a:1) as a 'significant day in the history of New Zealand education' because it saw the abolishment of the 'bureaucratic maze of the Department of Education' (Ministry of Education, 1993a:9). Under this Act, the regional education boards, councils and committees also were disestablished, and these bodies were replaced by six government agencies responsible for administering early childhood and compulsory education, *i.e.* the Early Childhood Development Unit, the Education Review Office, the Ministry of Education, the Special Education Service, the Parent Advocacy Council and the Teacher Registration Board (see below for an outline of the functions of selected bodies).

A key feature of the Act was that schools were now required to have a Board of Trustees. This move by central government to devolve the power of administrative control and organisation to the boards is indicative of the state's intention to reduce its role markedly in

implementation and community decision making while retaining its power in the political centre. Hence, the issues of accountability and control are clearly to be seen as central to the reforms in New Zealand (Dale and Ozga, 1993; Mitchell *et al.*, 1993). Following Codd (1990), the relationship structure that has been put in place means that decisions can now be more effectively controlled by the government.

This fundamental change in the relationship between the national government, schools and the community has also been enunciated in the 1990 Education Amendment Act which created school charters and introduced bulk funding (NZ Government, 1990). According to Dale and Ozga (1993:68), charters are to be regarded as 'the cornerstone of the New Zealand reforms'. They specify the responsibilities of the Board of Trustees to the Minister of Education, intending to ensure that the school is managed and organised for the aims, purposes and objectives set down and in accordance with the National Education Guidelines (Ministry of Education, 1992; Mitchell *et al.*, 1993, Appendix D) (14). In developing charters, the schools are required to consult with their communities and 'establish the kinds of educational outcomes desired for the students' (*ibid*, p.19).

Although the charters are written by the individual Boards of Trustees, their content is largely prescribed by the national government and is common to all schools (*ibid*, p.81). Hence, school accountability is, at least in policy terms and in keeping with the philosophy of 'Tomorrow's Schools', safeguarded through the school charters and monitored by the Education Review Office. At this stage it would be appropriate to emphasise that the introduction of charters, bulk funding and Boards of Trustees are measures which have focussed mainly on education administration, and not on the quality or practice of education in classrooms (*ibid*, p.80; cf. Lauder *et al.*, 1990).

Another important measure introduced by the government in 1991 in order to raise accountability in education and to move towards an 'education and training market', was the EFTS (Equivalent Full-Time Student) bulk funding system for the tertiary institutions, substituting central decision making about levels of staffing, operating grants and capital works projects for increased institutional self-management. State subsidies to each tertiary institution are granted according to the number of equivalent full-time students in each of the course cost categories at their institution, while they have to meet the requirements set out in the 1989 Public Finance Act and the 1989 Education Act and their subsequent amendments (Ministry of Education, 1991b). Hence, tertiary providers are placed in competition with each other through the EFTS policy which, in the view of Lundberg (1994:20), 'is already producing strong adaptive behaviour of the kind sought by the New Zealand government when it initiated these policies'.

The Ministry of Education was established in 1989 as a department of state under the 1988 State Sector Act and its role (and statement of purpose) is to provide policy advice to the government on early childhood, compulsory and post-compulsory education, which includes employment-related education and training. It has, also, to ensure the effective, efficient and equitable implementation of the government's policies and to advise on the optimal use of resources allocated to education (Ministry of Education, 1993b). The underlying purpose the Ministry identifies with is to help the government achieve its 'strategic results' (Ministry of Education, 1994b:9), *i.e.* 'maintaining our current strong economic growth and building strong communities and a cohesive society' (NZ Government, 1993:2).

'Maintaining and accelerating economic growth' is the 'strategic result area' first mentioned in the Ministry's 1994/5 Corporate Plan and is clearly an indication of its commitment to a 'human capital' approach to

education and training (Ministry of Education, 1994b:9). The Ministry of Education provides contestable policy advice to the central government and in the context of this thesis, it is relevant to list four of its priority policy areas, which are: directions and targets for education; skills training; the education and labour market interface; and, the National Qualifications Framework (*ibid*, p.16). With regard to the latter, its objective is to 'examine and advise on the coherence and integration of the New Zealand Qualifications Framework with school and post-school curriculum and assessment' (*ibid*).

The Education Review Office (ERO) was also established in 1989 as a separate department of state under the State Sector Act of 1988 (*ibid*) and receives its funding through Vote:Education Review Office. The Office's functions are to regularly and systematically review and audit the performance of all registered schools and early childhood centres against requirements set out in legislation, charters, agreements, and other policy directives. ERO, in addition, may undertake special reviews either on the initiative of its minister, who currently is the Minister of Education but may not be in the future, or of the Office itself. Its mission statement is 'high quality evaluation contributing to high quality education' (ERO, 1995b) and the Office affords to the intended outcome of the government to improve the quality of education for all learners (ERO, 1990:3) (see figure 3.1 below).

While the 1989 Education Act mainly focussed on the control and management of primary and secondary education, under the 1990 Education Amendment Act three new central agencies were established with statutory functions in the post-compulsory education and training sector. These are: the Education and Training Support Agency (ETSA), the Career Development and Transition Education Service (or the Careers Service) (15) and NZQA, all of which were formed as body corporates and Crown agencies for the purpose of the Public Finance Act of 1989 (NZ

- Service Providers

These four agencies have Documents of Accountability with the Minister of Education.
Learning Media Ltd has a contract with the Secretary for Education.

Government, 1990). The 1992 Amendment Act changed the status of these bodies into Crown entities, which were from then on required to include statements of service performance in their annual financial statements.

The Education Amendment Act stipulated that ETSA would assume responsibility for administering the ACCESS training scheme, apprenticeships, the primary industry cadet schemes and other activities and programmes relating to education and training as determined from time to time by the minister after consultation with interested parties (*ibid*, p.109). The Agency, an independent organisation, is funded through Vote:Education and works under a charter to the Minister of Education to whom its Board is directly accountable. The Board members are appointed by the minister, except for the general manager, and ETSA is considered as being a 'service provider' (Ministry of Education, 1993a:27). In practice and in spite of its operational focus, the Agency is said to be involved in training and labour market policy formation through 'input and discussion with the Minister, the Ministry and with key groups of officials' (McCarthy, personal communication, 1996; Ministry of Education, 1990a). Its aim is to build a 'learning culture' in New Zealand which links skill development to economic advantage.

The legal status and the institutional arrangements of the Careers Service are similar to that of ETSA as it was set up to work under a charter to the Minister of Education. It is also a 'service provider' in that it was formed for the purpose of providing a careers and advice service to help New Zealanders make informed choices about careers and assist them through the process of change in their working lives. One of its main functions is to assist educators and trainers to run effective career education programmes. The Service is required to establish and maintain a database of information about occupations and about post-compulsory education and training (NZ Government, 1990). Unmistakably, since

consumer choice is being promoted by the government as a guiding principle in the education and training marketplace, and holds a central place in its social and economic policies (Bolger *et al.*, 1990), the importance of available career advice and course information is therefore becoming very important indeed.

The New Zealand Qualifications Authority, the third Crown agency established under the 1990 Amendment Act, is headed by a Board appointed by the Minister of Education which reflects community, employer and education interests. The CEO (until October 1996 David Hood) is responsible for the administration and management of the Qualifications Authority and reports to the Board which is regarded the Ministry of Education (1993b:43) rather enviously as having 'substantial policy making powers'. At its inception, in July 1990, NZQA had 120 permanent staff and a team of five general managers, each of which had responsibility for a division within NZQA. These divisions were: policy, Maori, assessment and certification, corporate services and implementation. An organisational restructuring took effect in June 1995 aimed at increasing the Authority's focus on customer specifications and the quality of products and services and to improve its efficiency. At the time of writing, NZQA has some 145 permanent staff.

The institutional arrangements for the Authority, being both a policy development and implementation body, is seen by some as an irregularity in the context of most existing arrangements, as usually a department of state would undertake such tasks and the chief executive would be required to report directly to the minister, and not to the Board (*ibid*). The Authority is the only agency created under the 1990 Education Amendment Act with a policy function and therefore its institutional status is markedly different from that of the other agencies. It is clear that the Authority has been set up as an 'agency of change' (NZQA, 1996e), to

which the government is strongly committed, with an aim to overhaul the existing structure of qualifications. Some even argue that NZQA has almost become *de facto* the Ministry of Education (Maharey, interview, 1994).

Under the provisions of the 1990 Education Amendment Act, the New Zealand Qualifications Authority was founded for the purpose of establishing a 'consistent approach to the recognition of qualifications in academic and vocational areas' (NZ Government, 1990:95). Its main functions are to:

- develop a framework for national qualifications in secondary schools and in post-school education in which

- (1) all qualifications have a purpose and a relationship to each other that the students and the public can understand; and

- (2) there is a flexible system for the gaining of qualifications, with recognition of competency already achieved;

- (3) set and regularly review standards as they relate to qualifications;

- (4) ensure that New Zealand qualifications are recognised overseas, and overseas qualifications are recognised in New Zealand;

- (5) administer national examinations, both secondary and tertiary (*ibid*, pp.99-100).

The legal and administrative structures outlined above have been put in place to rationalise provision by means of market-based decentralisation initiatives and to accommodate a shift towards an outcomes-oriented accountability approach in education and training. Incontestably, structural change in this sector is all-pervasive and impinges on every single aspect, which includes local and state level control and management. A notable feature of government administrative control in education, post-1990, is that the Ministry of Education has no legislated control over some of the newly established education agencies, *e.g.* ERO

and NZQA. Formal connections between these agencies and the ministry are non-existent (Ministry of Education, 1992:12-3); or are, in the case of the Authority, considered by a ministry official to be 'quite constrained' (Perris, interview, 1994).

Another significant outcome of the reforms is that the responsibility for delivering labour market and industry-based training has been transferred to ETSA and enacted in educational law and no longer comes under the purview of the Department of Labour. In 1993, funding totalling \$1.9 million for off-job training was turned over from polytechnics to the Industry Training Organisations through the Agency (see below).

In the next section the focus will shift to an analysis of important new initiatives in education and training which have been designed predominantly to meet the government's economic goals (see above).

TOWARDS A NEW LEARNING AND PRODUCTION CULTURE: STRATEGIES, FRAMEWORKS AND ATTITUDES

In late 1991, the government introduced a 'New Industry Skills Training Strategy', a discussion document, which was its policy response to recommendations it had received from a number of task forces and working parties, *e.g.* the New Directions Conference 1990 and an interdepartmental task force on skills development, 1990. In these reports it was commonly suggested that New Zealand had to improve its skill formation and development and had to act swiftly and in a concerted way so as to overcome its 'skills crisis' (ETSA, 1990; Ministry of Education, 1991c; Taskforce on Skills Development, 1990; NZEF, 1990). And, subsequently, it was found that New Zealand's training and skill base had to be expanded and an industry-led training system adopted. It was recognised, on the other hand, that one of the barriers to skills formation was that all sectors in New Zealand lack a learning culture (Taskforce on Skills Development, 1990).

Another important concern expressed was that 'there is very little investment going into education and training' (Jones, 1992:9), which was an assessment broadly consistent with the conclusions drawn in the IMD/The World Economic Forum World Competitiveness Report of 1992, which clearly showed that the New Zealand enterprises were investing relatively lowly in the training of their employees (IMD/WEF, 1992). In a more recent survey, NZEF (1994a) discovered that employers contribute around 2% of their payroll to training.

In table 3.3 (see below), the results of a survey of employers in 37 countries, conducted by the IMD/WEF (1992), revealed that substantial differences existed in these countries as to whether education met the needs of a competitive economy and whether companies were perceived to invest sufficiently in the training of their employees. The figures given in this table are percentages on a scale from 0 (low) to 100 (high). It should be noted that the percentage differences in both 'categories' between Germany and New Zealand is no less than quite considerable.

TABLE 3.3

Selected countries	Extent to which the education system meets the needs of a competitive economy	Extent to which companies invest sufficiently in training their employees
New Zealand	42	50
Germany	70	72
Australia	46	58
United Kingdom	30	41
Japan	69	82
Singapore	76	69

Adapted from Elkin and Inkson, 1994:25

However, the notion of an existing 'skills crisis' was not unchallenged as an OECD study concluded that 'There is no unambiguous data on skill shortages in the New Zealand economy' (OECD, 1993b:103), a viewpoint that was generally supported in a Department of Labour (1994) paper. This paper recognised, on the other hand, that generally employers were experiencing more difficulty in obtaining skilled labour, especially in the trades area (*ibid*, p.16). Critics of the 'skills crisis' thesis believe that its existence has neither been demonstrated nor a clear definition of it provided (Gordon and Snook, 1992). Snook (1994) asserts that the persisting myth of a 'skills crisis' performs an important political function, serving dominant employer interests.

Undoubtedly, his criticism will apply to a view held by Barnett (1994) of the Auckland Regional Chamber of Commerce and Industry, who believes that 'The problem New Zealand needs to acknowledge is not a shortage of jobs, but a shortage of employable people with skills and commitment'. There is a substantial body of opinion and evidence indicating that poaching has been a rather common strategy applied by New Zealand employers in overcoming the problem of a lack of skilled labour and thereby avoiding the cost of training workers (Deeks *et al.*, 1994; Swain, 1994).

This notwithstanding, the volume of apprenticeships had decreased quite significantly by the end of the 1980s, reaching a level of approximately 28,000 in 1988, according to Kearns *et al.* (1993), and plummeting to just over 14,000 apprentices by 1992, with an intake of about 2,500 new entrants (Deeks *et al.*, 1994) (16). Although this decline in work-based training during the deregulation era is quite significant, no reliable data is available that gives a clear picture of the overall training effort in New Zealand, and how it has varied over time (Kearns *et al.*, 1993). Some of the underlying reasons believed to have caused this downturn are: a continuing economic recession, structural changes in

employment and, lastly, an absence of an apprenticeship culture (Deeks *et al.*, 1994).

The 'New Industry Training Strategy', in an effort to redress this situation, places an emphasis on the need to extend systematic training to industries and occupations and 'make it accessible to all who need it' (ETSA, 1991a:4). It also promotes an improvement in the quality of training and proclaims the need for the development of a 'training culture' in New Zealand. Identified as being of central importance in achieving these aims, as has been asserted, is the connection between an employer-led industry training system and a national standards-based qualifications framework (*ibid*, p.8). A partnership approach between the major role players, *e.g.* ETSA, NZQA, industries and the government, is therefore considered essential (see figure 3.2 below). The main role of the government in the industry training reforms is to create legislative and institutional structures and develop an industry training infrastructure, which includes the provision of funding to industry organisations to assist with their industry training (ETSA, 1993b; Smelt, 1995).

The 'Strategy' document announced the introduction of an Industry Training Bill to which a levy-based funding system was a central part (NZ Government, 1991b, Part III). But, ultimately, its intended role became marginalised in the Industry Training Act 1992 because of strong employer opposition (Famularo, 1994). The focus of the new training strategy was directed at small and medium size enterprises in particular, to reflect the fact that four in every five businesses in New Zealand employ fewer than five people (*cf.* Barnett, 1994). As a result of this and because of a lack of a 'training culture' in New Zealand, it was felt quite appropriately that there were economic risks associated with this strategy as the small firms in particular may be reluctant to absorb training (The Allen Consulting Group, 1994b).

Under the Industry Training Act, 'industry' was defined rather loosely, *i.e.* as 'two or more enterprises that use (a) similar inputs and methods of production to produce similar products or (b) similar methods to provide similar services' (NZ Government, 1992:2) so as to encourage employers to form groupings based on common interests rather than on clusters defined bureaucratically. This 'bottom-up' approach has the clear advantage that employers are encouraged to 'own' their involvement in education and training. The New Zealand Council of Trade Unions (n.d., pp.7,20), on the other hand, criticises what they perceive as the minimalist criteria for establishing, and leading to narrowly defined industry training organisations (ITOs) which, in their view, will lead to fragmentation and duplication (*cf.* Kearns *et al.*, 1993:41).

Under the terms of the Act, industry can take control of industry training programmes, which includes apprentice training. ITOs to be set up as corporate bodies and required to be recognised by the Board of ETSA for a set period of five years, each design, manage, and deliver training for their industries and set appropriate national skill standards. The rationale for this move, as advocated by the government, is that ITOs need to be owned and led by industry and to be as responsive as possible to industry training needs (ETSA, 1991a).

The 1992 Industry Training Act promotes the notion of 'training designed for industry by industry' (ETSA, 1992:3) and hence ushers in an era in which control over training is devolved to a large extent to the industry by the government. Deeks *et al.* (1994:429) make in this respect a cautious but valid comment by pointing out that 'there is a considerable variation as to how experienced employers are in providing training [in New Zealand]'. In a similar vein, Fitzsimons and Peters (1994:262) contest the idea of placing 'blanket' responsibility on employers to carry out skills training because, as they see it, other options are available (17). NZCTU (n.d., p.9), on the other hand, calls attention to 'the unwillingness of

employers to see training as an investment' and hence favours a compulsory industry levies system. This reluctance, the previous Minister of Education, Lockwood Smith, (interview, 1994) admits, may prove to be an obstacle in implementing the reforms successfully.

Skill New Zealand was the strategy introduced by the National Government in its 1993 Budget, that expanded the 'New Industry Skills Training Strategy', and set out 'to raise the skill levels of New Zealanders' (ETSA and NZQA, n.d.). It is predicted that it 'will build a new national training culture' (*ibid*) and change the way organisations and people will learn and train in the future (ETSA, 1993a; Kerr, 1994) and, moreover, introduce into our economy and society 'a fundamental cultural change' (Kerr, 1994:36). Skill New Zealand, which includes new training initiatives such as Skill Start and Skill Pathways (18), comprises two strands: industry training arrangements for which ETSA is assuming responsibility and the National Qualifications Framework (NQF) developed by NZQA. These two essential components in the government's strategy will be discussed below.

~~ITOs have been characterised as 'brokers or supervising agencies'~~ (The Allen Consulting Group, 1994b:69) and are unlike the industry training boards they replaced, in that they are not training providers. It is clear that ITOs will have an important role to play in the PCET area, which is reflected in their range of functions, *i.e.* setting skill standards for their industry; developing training packages for employers in their industry; arrange for the delivery of on and off-job training and, *in addendum*, deciding how to monitor training standards and assess trainees (see figure 3.2 below). According to Smelt (1995), the monopoly rights ITOs have in relation to the national qualifications framework may be detrimental to government's overall aim of enhancing labour mobility by upskilling its workforce. The reason for this view is that individual employees' career

FIGURE 3.2 ROLE PLAYERS AND RESPONSIBILITIES IN VET

development and their pursuit of new 'framework' qualifications will be influenced by employer interests (19).

An obvious motive of the government in its policies to anchor workplace training firmly in our national system of education and training appears to rest upon the notion that industry-led and funded training will be more cost-effective to them than institution-based learning. This seems to be one of the main reasons why workplace training is being promoted as a 'real alternative' to institutional education and training (Ministry of Education, 1993c:16; Fitzsimons and Peters, 1994) and perhaps why industry-related training programmes for secondary school students are currently being developed (Ministry of Education, 1994a) (20).

In general terms, however, most ITOs are at the moment heavily dependent upon public rather than industry funding (Smelt, 1995). A further issue of concern was the widely perceived fragile state of many ITOs (in or prior to 1994) (Sturrock, 1995; Prime Ministerial Task Force on Employment, 1994; Julian and Wickens, interviews, 1994) (21). On this note it is significant that NZEF (1994a:4) sees ITOs as the 'servants of enterprises and industries' and expect them to operate like any other business.

In developing their operations and functions, as listed above, ITOs have been government funded. They can apply for three types of fund, *i.e.* an industry training development fund mainly for conducting training needs analyses (\$7 million); an administration fund for apprentice and industry training schemes (\$8.5 million); and, off-the-job training (\$22.7 million) (ETSA, 1993b). From 1993, ITOs have been able to bid, via a contestable pool, for the use of these funds to purchase their off-the-job training.

The National Qualifications Framework (NQF), which was at the time of writing expected to be fully implemented in 1998 (see chapter five), forms the second part of the government's Skill New Zealand strategy. In the first section of this chapter the antecedents relating to and the development of both the notion of a qualifications authority and a qualifications framework have been the subject of detailed discussion. Before presenting a broad overview of the structure of the NQF, the philosophy that underpins the framework will be discussed (22).

In its first corporate plan the Authority affirms that the aim of the recent reforms is to improve the quality of education and training in New Zealand which, in its view, implies change and hence presents challenges to established systems, practices and attitudes. Thus understandably, NZQA, after being mandated to restructure existing qualification arrangements, sees its primary role as that of a change agent (NZQA, 1990c:8). This focus on the 'quality' aspect is also emphasised in its current mission statement which says that the Authority:

will promote improvement in the quality of education and training through the development and maintenance of a comprehensive, accessible and flexible National Qualifications Framework (NZQA, n.d./e) (23).

Under the current legislation, the assurance of the quality of provision in education and training in relation to the NQF is one of NZQA's two central purposes (NZQA, 1993a). It defines 'quality', in brief, as 'fitness for purpose' in meeting customer requirements (Male, 1993:1) (24). Ergo, the customer defines the purpose and, at least in theory, should be able to decide on whether the quality of NZQA's products and services are of an acceptable standard. The Authority, in turn, needs to determine who its customers are so that 'customised' quality can be delivered and, in terms of self-interest, its business operation sustained. In the view of the Authority, the quality in education and training will be increased if those who have

responsibility for the delivery and outcomes 'are empowered to take ownership of quality'. Therefore, to empower others is seen by NZQA (n.d./f) as a constant aim and ultimately it is envisaged that its role will diminish to that of auditing providers (NZQA, 1994f).

This empowerment (or devolution) principle is important in that NZQA commits itself, as legislated, to oversee the setting and achieving of standards. Responsibilities for the quality of education and training can essentially be seen as a two-tier system according to NZQA. Providers and students, in partnership, have first responsibility, while NZQA's role is to ensure that providers have quality management systems in place which are found 'fit for purpose' (NZQA, n.d./e:9) (NZQA's quality assurance measures will be discussed in the next chapter). Not surprisingly, NZQA perceives itself as a 'standards body' (Leach, quoted in Lennox, 1993:4) in that it protects 'the rights of students from poor provision and substandard qualifications' (*ibid*) and in this sense, and in accord with the relevant government policies and outcomes, fulfils a regulatory function.

The Authority's second central purpose is to establish a National Qualifications Framework which is fundamentally a 'national credit transfer system' (NZQA, 1993a:4; Hood, interview, 1994). This Framework comprises eight levels onto which new national qualifications are mapped, *i.e.* National Certificates, National Diplomas and degrees, which are made up of unit standards and designed to provide students with maximum learner flexibility, allowing for cross-creditation of unit standards between qualifications. Learner choice is therefore a key feature of the NQF. It is intended that the Framework will have clear linkages between registered new qualifications and will allow for multiple pathways, all of which are believed to make a contribution to increased participation in post-compulsory education and training, which is a key aim of the framework. In addition, NZQA also endeavours to ensure that the NQF is rational and widely understood (NZQA, 1995d:7).

Both the National Qualifications Framework and NZQA are unique constructions in that the establishment of a single qualifications authority as well as a single comprehensive framework, covering all education and training sectors, has never been tried anywhere else in the world (*ibid*, p.12; NZQA, 1990b; Robson, 1994). Consequently, one could plausibly argue that the framework model seems to be a very ambitious experiment. Central to this cross-sectoral approach to education and training was Dr Lockwood Smith's vision to build a seamless education system (see figure 3.3 below) that has no barriers to participation and lifelong learning (Ministry of Education, 1994a:20). This system will be based on 'unit standards' (25). Smith avowed that the system 'must not artificially distinguish between the different forms of education' but, alternatively, 'must focus on the skills, knowledge and understanding required by the wider world' (Smith, interview, 1994).

Smith professes that 'education should be driven from the learning that is needed [by an individual]', which implies that it should be student-centred and choice-driven rather than system-focussed. In his thinking, people should be able to pursue their learning in a way that supports them best. However, his vision of a seamless education system was not shared by some of the opposition parliamentarians. Sandra Lee, for example, believed that this concept has been introduced to justify government cost-cutting in the education sector and contended that too much emphasis was now being placed on 'education for vocational training' (interview, 1994). The issue of funding students who are concurrently studying at the different places of learning and at a different pace is clearly an important one and remains unresolved to date at national policy level.

Maharey and Austin (interviews, 1994) also criticise Smith's notion of a seamless education system because they clearly see distinct advantages in continuing to have functional boundaries between providers. In general terms, this point of view is supported by Lauder who

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National
Qualifications
Framework

Source: Ministry of Education, 1994:21

believes that the more institutional continuity and stability there is in a highly unstable world, the better (*Nelson Evening Mail*, 1993). In presenting a polytechnic perspective on this issue, Doyle (interview, 1994), notes that the idea of a seamless system is being overemphasised and claims that 'polytechnics are already as open as they can be'.

Doyle argues that the 'seamless' concept appears to be foremostly a political and pragmatic response to perceived problems in the education and training sectors though without having a basis in either educational theory or empirical research. An editorial in *The Press* (1994a) maintains that 'it is a leap of faith'. Tuck (1994:232), on the other hand, considers the seamless system as being a 'system of instrumental education, where the goals are determined primarily by economic imperatives'.

In returning to the National Qualifications Framework, the question needs to be asked whether this scheme can and should be criticised for the same and/or other reasons. The previous chapter already demonstrated two salient points: first, the respective government administrations responsible for instigating and implementing the reforms wanted to be seen as reforming governments and, secondly, there has been some considerable professional and public disquiet over the state of affairs of education and training in New Zealand in the last twenty years. Against this background the NQF will be appraised in the next chapters. But first, some of the early shaping of the framework will be discussed briefly.

NZQA's first public discussion document, "Towards a National Qualifications Framework", was released in October 1990, requesting submissions on a possible framework shape. Two options had been put forward, *viz.* a framework with different titles for modular-based awards (NZ Certificate, NZ Higher Certificate, NZ Diploma and NZ Degree) and one with a common title for all awards below degree level, (National

Certificate), which would be divided into levels or stages of increments of competence (NZQA, 1990b:4-7). The advantage of the latter option, according to NZQA, is that it shows education and training as a continuum regardless of the place or the type of learning and thereby reducing the artificial distinctions between 'academic' and 'vocational' awards (*ibid*, p.7) and also provides a more viable structure for cross-creditation and the recognition of prior learning (NZQA, 1994f).

Some 240 submissions were received which generally gave support to the idea of developing a qualifications framework and also endorsed the intended move to using standards-based assessment in lieu of norm-referencing. An analysis of the submissions reveals that although 34% were in favour of the second option, 30% of the responses were undecided on which model to choose, if any, whereas 28% outrightly preferred the first model and not the national certificate option. While the universities (6%) generally expressed their concerns with the proposed framework (Elley, 1990; NZVCC, 1990), the Academic Registrar from Lincoln University strongly endorsed the notion of an 'educational continuum' as he saw that this would be critical to the aim of increasing participation rates (Smyth, 1990). On the other hand, Crozier (1990), a spokesperson for The Association of University Teachers of New Zealand, strongly criticised the concept and the proposed central place of credit transfer in a qualifications framework by making the point that this stems from 'educational economism' rather than from pedagogical principle.

NZQA's preference for the national certificate option was clearly influenced by an investigation undertaken by Ray Taylor, a former NZEF Assistant Director-General, into the British NVQ system which he appraised against the above two options. He predicted that NVQs were to become the common currency for the international recognition of vocational qualifications and he recommended to NZQA that New Zealand adopt this system, which was broadly comparable to option two

proposed by NZQA, and identified by him as a preferred industry option (Taylor, 1990:8) (26).

A second consultation document, entitled "Designing The Framework", was released by NZQA in March 1991, attracting over 1600 submissions. The Authority identified eight levels of learner achievement which were derived from those which have been proposed by the Australian National Training Board (Lankshear and Levett, 1992). The NQF, as proposed in NZQA's document, was seen to encompass a co-ordinated set of units of learning equally available at senior secondary and tertiary levels and also through self-directed study or experiential learning (NZQA, 1991a:36). Overall, the public submissions strongly supported the proposed Framework which included a preference for an eight-level, standards-based qualifications system. They also endorsed the recognition of prior learning as well as the recognition of excellence in assessment being included in the framework (27). Moreover, NZQA (1991:36-42) claims, most submissions favoured the new system being based on a units format .

The responses the Authority received from widespread public consultation in combination with applied research it either had undertaken or commissioned finally resulted in NZQA Board announcing its final decisions with regard to the NQF, as outlined in appendix 4.

The industry training and qualifications reforms are complemented by two equally important and connected reform initiatives, *i.e.* the workplace and curriculum reforms. The principles underpinning these reforms will be discussed now in brief, and some of their achievements will be appraised later in chapter five.

One of the aims of the Skill New Zealand strategy, as noted earlier, is to engender a new learning culture in the workforce. 'Workplace reform' is a collective term used to describe work organisational changes and

incorporates the idea 'that companies should develop an integrated approach to production and human resource management' (Deeks *et al.*, 1994:584). Workplace reform has been introduced recently in New Zealand and seeks to bring about new flexible forms of management-labour relations in enterprises in order to gain economic efficiency as well as improved quality of working life (Workplace New Zealand, 1993; Fitzsimons and Peters, 1994) to which the Employment Contracts Act is perceived as central (Fitzsimons and Peters, 1994).

Essentially, workplace reform, as currently being promoted, is about breaking down, or at least reducing, the manual-mental division and encouraging decision-making to take place where the job is performed. Fundamental changes in attitudes and practices are required for pursuing and achieving this 'post-Fordist learning and production' aim, which requires an adoption of an integrated and flexible approach to work. The successful implementation of workplace reform is thus dependent upon the integration of a range of factors such as training, work organisation, skill, new technologies, service delivery systems, and quality programmes and, importantly, the commitment of employers and employees to its success (*ibid*, p.257).

The main aim of the advocates of workplace reform at enterprise level is to 'work smarter' and to achieve real and lasting improvements in productivity and competitiveness with a positive spin off for the national economy as a whole (Workplace New Zealand, 1992). Employees will benefit, as envisaged, in terms of acquiring 'genuine' empowerment as distinct from controlled worker participation (*ibid*, p.3). Both the Council of Trade Unions and the Employers' Federation regard workplace reform as important and co-operate in realising these twin aims (Davies, 1993; NZCTU, n.d.). This initiative tries to bring about attitudinal and cultural changes in individual and corporate behaviour in order to procure a high skill, high wage New Zealand economy.

Of equal significance to the above reform initiatives is the New Zealand Curriculum Framework, the government's official policy statement from 1993 for teaching, learning and assessment in schools (28). Following the Thomas Report of 1942, which had been instrumental in transforming secondary education as from the mid 1940s, the school curriculum did not undergo any far-reaching alterations (Philips, 1993) until this changed in the 1980s when there was a growing concern among politicians, teaching professionals and the general public that the curriculum did not accurately reflect the social, cultural and economic needs of the individuals and society at large.

A need to reform school curriculum and assessment was expressed in a number of reports, *e.g.* "Learning and Achieving" (1986), "The Curriculum Review" (1987) and "Assessment for Better Learning" (1990). The latter report particularly cautioned against a view that assessment may disentangle the perceived problems in the education system while placing a premium on the raising of standards by means of keeping young people longer in education (Ministry of Education, 1990c:13,16) (29).

The New Zealand Curriculum Framework mainly draws from the findings of these reports, *inter alia*, and the purpose of its designers is to provide a 'coherent framework for learning and assessment in New Zealand schools' (Ministry of Education, 1993d:1). The general notion that underpins the adoption of this new approach is that a new learning environment is required in which students attain high standards and the workforce is increasingly highly skilled and adaptable in order to meet the challenges of a competitive world economy (*ibid*). This framework is based on the 'achievement initiative', which was introduced in 1991 by the Minister of Education, and which sought to link closely curriculum, assessment, and teacher and resource development, initially in the subject areas of technology, mathematics, science, and English (*Education Gazette*, 1991, quoted in Jesson, 1995:147).

The achievement initiative promotes a new curriculum with the specification of achievement objectives (outcomes) in levels for compulsory schooling. The 'education community', however, has reacted rather apprehensively towards the initiative and the framework, bearing in mind the experiences in the United Kingdom with a similar multi-level curriculum model (Jesson, 1995; Elley, 1993).

The New Zealand Curriculum Framework document describes the elements which are seen as fundamental to teaching and learning in New Zealand schools and it gives the principles that guide their direction. One such principle is that all teaching and learning is to place the individual student at the centre. Additionally, the framework categorises seven essential learning areas, which itemise in broad terms the knowledge and understanding all students need to acquire as well as the essential skills they are required to develop (30). Furthermore, direction is also provided for the more specific national curriculum statements which describe in more detail the learning outcomes (the required knowledge, understanding, skills and attitude) against which students' achievement are to be assessed; and finally, the framework outlines the policy for assessment at school and national levels (Ministry of Education, 1993d).

The national curriculum statements, as stated earlier, derive from the framework and each have several strands of learning which have sets of specific objectives and are set out usually in eight levels, which indicate progression and continuity throughout compulsory schooling from year one to year 13. One critic of this development, Elley (1993:38) contends that there is no rationale for dividing any of the curriculum areas into eight (or more) evenly spaced levels. He claims that the multi-level school curriculum structure has been set where they are, chiefly on the basis of the subjective opinions of teachers who served on committees, and is unsupported by research (*ibid*, p.39; Irwin, 1994).

From an education viewpoint, a further area of concern is an existing 'conceptual incongruity' between the levels developed for the curriculum framework and those for the qualifications framework. The levels on the former framework are related to various assumed psychological developmental processes, whereas those on the latter are based on labour market functions (Jesson, 1995; Elley, 1993). The linking between these models and their integration within a vision of a seamless education system therefore demands a critical appraisal. In spite of this reservation, however, the integrated policy approach employed in New Zealand is also an exciting one and in general terms is a laudable effort in overcoming perceived problems. In the following chapter the National Qualifications Framework, a major focus of this research, will be the subject of detailed analysis.

NOTES

- 1 The analysis presented here is constrained by the fact that at the time of writing the National Qualifications Framework (NQF) is not yet fully operational and therefore represents a 'snapshot' type appraisal.
- 2 The term 'competency movement' has been used here as a generic notion to indicate the existence of competency- or achievement-based testing in educational settings prior to the tertiary education reforms and, importantly, their emergence on the national educational and training policy agenda.
- 3 The University Entrance examination was removed from Form 6 in 1986.
- 4 The value of the 'Green Paper', although it was a draft document only, lies in the fact that it clearly canvassed the concerns of two government departments on the state of affairs of the VET system. Evidence available suggest that officials were already involved in late 1985 in drafting the paper (Department of Education, 1985).
- 5 Their visit was followed one year later by a delegation consisting of officers of the Department of Education, the Technical Institutes Association, the Vocational Training Council and AAVA (Department of Education, 1987a:1). Besides the Scottish Action Plan, the qualification reform attempts in England and Australia at that time appear to have been

the two other main exemplars for research and consideration of PCET policy-makers in New Zealand (Short Life Working Group (SLWG), n.d.).

6 The sharing of the ownership in education and training had already been recommended in the Probine/Fargher report and was welcomed by the New Zealand Employers' Federation (NZEf, 1987a:5). The term 'social partners' is normally not used in New Zealand to refer to a partnership approach to training (and/or other areas) between the major role players as distinct from Germany where the use of an equivalent term is common practice (see chapter 1, footnote 3). In this context, it is interesting to note that the government is not included as a 'partner' in both the German and in this particular New Zealand reference.

7 Lifelong learning became associated with both the idea of an 'educational continuum' and a 'framework for national certification' in this report and was depicted in a diagram which foreshadowed the current diagrammatical model of the New Zealand National Qualifications Framework (Achievement Post-School Planning Committee, 1987:7).

8 NZQA has statutory responsibility for administering national examinations, both secondary and tertiary, and which includes the running of AAVA examinations after the Authority for Advanced Vocational Awards was disbanded in 1990.

9 Some educationalists (*e.g.* Hall, interview, 1996) argue that AAVA and TCB were already strong outcomes oriented. However they also included considerable guidance on process.

10 In a response to UNESCO recommendations on technical and vocational education, a committee of the New Zealand National Commission for UNESCO (1978:8) prepared a report in which it proposed that a national accreditation authority be established which would assume responsibility for setting standards and criteria in vocational and technical education and have accreditation, certification as well as validation functions.

11 Clearly, some confusion seems to have arisen here with regard to the educational terminology used. For the sake of clarity, validation is defined, within the context of the period under discussion, as 'the process which ensures that skills and knowledge expected of a course of study have been scrutinised and approved as meeting the purposes and standards of the proposed award (Department of Education, 1987c:4).

12 Interestingly, in view of note 6 (above) the government announced that employer, union and government representation were to be included at NEQA and its boards.

13 The working party consisted of representatives of the student organisations, employers and unions, providers, the examination authorities, the non-formal area, runanga matua, the advisory bodies and of officials from the Departments of Education, Labour, Maori Affairs and the Office of the Under Secretary of Education, and consulting officials

from the Treasury (Michael Irwin), the State Services Commission and the Ministries of Womens Affairs and Pacific Island Affairs.

14 The Boards of Trustees are required to adhere to the National Education Guidelines in their school charters, as legislated in the 1989 Education Act, and revised in 1993 to place an enhanced emphasis on learning and achievement. The Guidelines contain a statement of goals for education as well as curriculum and administrative requirements, which form a major part of the contractual arrangements between Boards and Trustees and the Minister of Education (Mitchell *et al.*, 1993:153).

15 This government body was renamed the Careers Service in the Education Amendment Act of 1993.

16 The total of apprenticeship contracts for the year ending 30 June 1992 amounted to 14,180, and around 3,100 apprentices became certificated as qualified tradespersons. The main industry sectors providing apprentice training were carpentry, electrical, mechanical engineering, hairdressing and motor with respectively 1,929; 1,255; 1,147; 1,918 and 2,102 apprentices in training (Deeks *et al.*, 1994:427).

17 Streeck (1989:100) cautions that firms may not have a rational interest in generating on-the-job skill formation which they cannot own but, paradoxically, may need in their production cycles. Drake (1988:313), in a similar fashion, asserts that certain types of corporate training behaviour may be dysfunctional to a firm in the long run and socially damaging in the short run, which therefore may influence its decision on whether or not to provide training.

18 Skill Start aims to increase the opportunities for young people (16-21 years) to participate in systematic on-the-job training and eligible employers are provided an incentive payment of \$1,000 per trainee. Skill Pathways, a transitional programme, targets the same age group and aims to provide training opportunities in those industries which have not had a history of apprentice training, replacing the Youth Traineeship programme (ETSA, 1993b).

19 Smelt (1995:31) makes the apt point that employers will tend to favour low entry barriers over low exit barriers for worthwhile employers.

20 See also the chapters on Germany.

21 See chapter five for a discussion on issues relating to more recent ITO (and qualification) developments.

22 Chapter four will deal in-depth with the major elements of the NQF.

23 The scope of this statement has been expanded on from the original and now includes an emphasis on improving the 'quality of education and training' and developing a 'comprehensive' framework.

24 The long definition of 'quality' used by NZQA (1993:4) reads: 'the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs'.

25 Although it was NZQA's original intention to build a modular-based framework, where each module would equate to 40 hours of

learning, gradually the focus shifted to the development of unit standards which would be combined in teaching programmes or assessed on the job. This change in thinking was fundamental because the delivery of learning became divorced from the setting of standards, the latter which was a task of NZQA in partnership with stakeholders. Providers now have the role of performing the former function (Lythe, interview, 1994) (see also next chapter).

26 An analysis of the submissions to NZQA on a preferred framework model indicated strong support for the National Certificate option by industry groups, such as NZEF, the NZ Manufacturers Federation and the Chambers of Commerce.

27 These results were derived from a statistical analysis of returned questionnaires enclosed in the consultation package.

28 Since curriculum development and reform is not central to the main thesis in this work, only a brief account will be presented here.

29 The "Tomorrow's Standards" report does not define what (educational) standards are but in its text assumes that an expansion of retention rates in education and training will result in the raising of standards *per se* (cf. Ministry of Education, 1990c:12-3).

30 The seven essential learning areas are: language and languages, mathematics, science, technology, health and physical well-being, social sciences, and the arts; the essential skills include communication skills, numeracy skills, information skills, problem-solving skills, self-management and competitive skills, social and co-operative skills, physical skills and work and study skills;

31 These data have been obtained from the Scottish Qualifications Authority (McNeil, 1997) for last minute inclusion in this thesis and represent the participation rates for 16-19 year olds in Scotland in 1984-85. The percentages are taken of the number of 16-19 olds in Scotland in full-time education in schools, further and higher education, excluding the universities.

CHAPTER 4 STANDARDS, ASSESSMENT AND CERTIFICATION

THE NEW ZEALAND MODEL: A STANDARDS-BASED QUALIFICATIONS SYSTEM

Pivotal to the newly adopted approach in education and training in New Zealand is the notion of 'standards' (Croft, 1993), in spite of this being an ambiguous and loosely-used term in education (Hawe, 1995). In 1991, the NZQA Board announced that the components of NQF qualifications would 'be units of learning based on clearly identified and published learning outcomes' and 'that the assessment for nationally recognised qualifications be based upon clearly defined standards' (NZQA, 1991b:29). These, in the Board's view, will 'provide motivation for the learner, clearer goals for the teacher, better information for the user and a fairer basis for evaluating achievement' (*ibid*, p.14) (1). Standards therefore were conceived as nationally registered statements of education and training or learning outcomes (NZQA, 1993b; Levick, 1993). Since this notion holds such a key position in relation to the National Qualifications Framework (NQF), it will be appraised in some detail below.

'Standard' derives from the Roman word *estendre*, to extend, and can be defined as 'A required or specified level of excellence, attainment, wealth, etc.' (Brown, 1993). Alternatively, it is 'used as a standard of measurement...' or as 'a standard of comparison or judgement' (*ibid*), among other descriptions. Because the notion of 'standards' embodies this variety of meanings, its usage in an education and training context requires careful attention.

Against this background, it is useful here to take a step back and briefly examine the conceptual basis of the notion of 'standards'. Because standards are set by people to serve particular purposes, their nature is by definition instrumental and arbitrary (Sadler, 1987). It follows that in

setting standards, practical considerations will always have to be taken into account (*ibid*, pp.196-197). According to Livingstone (1990:435), the application of standards in the educational context should be regarded as 'objectives to be attained or expectations of desirable attitudes or levels of performance'. Importantly, he points out that a standard should not be confused with the actual level of performance, for which the more accurate term is 'norm'. Albeit, standard setters draw on 'norms' in order to determine the desirable level of achievement for students (Sadler, 1987) (2).

In carrying this to its logical conclusion, the primary function of 'standards' is that they allow assessors and teachers to make statements on the performance of a student or the degree of achievement but without reference to the achievements of other students (see below). In sum, the notion of standards *per se* and in the education and training sectors is clearly a 'fuzzy' concept in that it can be interpreted in so many different ways. Since NZQA is one of the major role players in the standards setting process, its position regarding the term 'standards' and their purpose will be clarified below.

NZQA defined standards in December 1996 as the defined learning outcomes, together with performance criteria, examples of their interpretation and application, and associated quality assurance processes (NZQA, 1996i:8). In the view of the Authority, the benefits to employees and learners for having national standards are manifold and include improved access to qualifications; improved transfer of knowledge and skills between learning providers, occupations, locations and employers; a simpler progression from one qualification to another; and having national qualifications now available where there were none before. Employers, on the other hand, it is stated, will benefit because they are able to select staff more easily while improving their retention and increasing their

motivation. There also will be clear training goals as well as standards against which training can be measured, and these are all factors which will contribute to the creation of a multi-skilled workforce. Some of the other benefits ascribed to national standards by NZQA are consistency, the recognition of New Zealand qualifications overseas and the inclusion of provision for credit for prior learning (*ibid*, pp.5-6) (3).

It is important at this juncture to clarify what NZQA exactly means by standards in relation to the NQF. At the time of writing (December 1996), the New Zealand standards-based qualifications framework sets out to provide 'performance standards for learning and workplace performance outcomes' and, in doing so, it looks at academic learning, education and training as well as at the occupations; furthermore it is aligned against clear standards' (Richardson, interview, 1996). The standard is set, according to Richardson (*ibid*), by 'the elements, the performance criteria and the range'.

Hence, the Qualifications Authority adopts a holistic approach to 'standards' as it does to 'quality'. With regard to the former notion, Barker (1993a) differentiates between two sets of standards. Firstly, standards which relate to a qualification registered on the NQF by NZQA. Secondly, those which apply to the quality of provision of provider learning (4). The two sets of standards, in combination, constitute a total quality management system and 'fitness for purpose' is the guiding principle for each of the two standards (*ibid*, p.4; O'Connor, 1994). Whilst NZQA has the responsibility to oversee the standards setting process and to register new nationally recognised qualifications on the NQF, providers are autonomous in developing curricula. The proclaimed non-prescriptive nature of the NQF, as providers decide on how to combine unit standards within programmes (NZQA, 1996a:11), is an issue that will be explored in the next chapter.

The unit standard is yet another part of the quality management system that underpins the New Zealand standards-based qualifications framework. A 'unit standard' is the amalgam of the required evidence, *i.e.* the quality of the evidence as well as the context in which the evidence must be presented, which will give an assessor a guideline of what is the appropriate level of performance or standard of performance (Richardson, interview, 1996). As the NQF continues to evolve, NZQA's definition of a 'unit standard' may change accordingly. The term has been described by NZQA in slightly different ways over time, including the outcomes of learning (NZQA, 1994a; 1996a), a group of activities that collectively have an outcome (NZQA, n.d./b), learning and workplace performance outcomes (Richardson, interview, 1996) and, more recently (December 1996), as

a nationally registered, coherent set of learning outcomes and associated performance criteria, together with technical and management information that supports the delivery and assessment processes (NZQA, 1996i:8).

A more comprehensive concept of standards, as used by the framework development section of NZQA for training unit standard writers, contends that standards 'encapsulate all that needs to be accomplished for the achievement of an outcome' (NZQA, 1995b:2). This statement is not insignificant in that standards are not only seen to relate to the application of skills and knowledge but additionally to a person's ability to manage contingencies, activities and relationships, and to take into account safety and environmental issues which may impinge on work activities; and, finally, to integrate 'quality' into their output (*ibid*).

These specifications obviously signal a perceived or a real need in New Zealand for a new type of (post-Fordist) worker/employee who has higher cognitive skills and who is flexible, assertive and intelligent (see also chapter one) (5). What appears to be evident, on the other hand, is that

occupational classification is not considered by NZQA to be an appropriate reference point in the process of setting the standards, in which it contrasts markedly with, for example, the German approach (see chapter eight). In facilitating the setting of standards, the Authority is primarily concerned with the major role players agreeing upon the appropriate performance expectation level of a role-holder (NZQA, 1995b).

The overall outcome of the unit standard is embodied in its title, *e.g.* Weather interpretation for agriculture and forestry: Monitor and Interpret Weather Information (NZQA, 1994a). Unit standards are, in NZQA's jargon, the building blocks of the National Qualifications Framework and are a logical group of learning/performance outcomes and criteria against which performance is judged (NZQA, 1995a). And they typically contain the date of issue, a level identifier, a credit value, the accreditation and moderation requirements, the elements, which are the sub-outcomes of a unit standard which a person must be able to achieve, the performance criteria, and a range statement (6) (For an example of a unit standard, see appendix 2). The latter three and the unit standard title together constitute a 'standard'.

These standards, according to NZQA (*ibid*, p.25), are all about 'know and can do'. Knowledge and understanding, on the other hand, are often considered to be implicit within the successful completion of the major outcome described by the unit standard and are only explicitly stated in the elements and/or the performance criteria when they are considered to be critical performances (*ibid*, p.20). It is interesting to note that NZQA does define what is a 'competent person' in the latest version of its unit writers' handbook, given the fact that the Authority, in the light the development of a standards or outcome-based framework, is keen to avoid

the associated notions of 'competence' and 'competency' (Levick, 1993; Peddie, 1995). In the view of NZQA (1995b:25)

'A competent person is someone who can perform a particular function to defined standards in a wide range of settings over an extended period of time'.

Standards bodies determine which unit standards make up qualifications for their industry and profession, while for conventional school subjects these are being determined by educators, based on national curricula. Unit standards can be gained individually or 'in packages for qualifications' (NZQA, 1995b) and are essentially cross-creditable. Once a learner has achieved a standard it is listed on a life-long Record of Learning, which is updated annually and issued by NZQA. Under current NZQA policy, there is only provision for credit when all the requirements for a unit standard have been met. It follows that in this respect there is only one standard (Richardson, interview, 1996).

In a different sense, the concept of 'standard', as is used by NZQA in education and training, encapsulates all learning as being able to be addressed in a particular outcome-based format. According to Vaughan (interview, 1994), its position is that 'everything is a learning outcome, whether this is entry-level [education or training], competence, excellence or whatever'. In order to clarify this more comprehensively, the standards setting process and the methodologies employed by the Authority over the last six years will be considered in some detail.

Although the Authority had done some work in the early days of its existence using the DACUM approach to training needs analysis (7), NZQA ultimately rejected this approach as being too narrow, and decided to 'adapt the functional analysis model from NCVQ' (Lythe, interview, 1994). Both NZQA's use of this model and its application of SCOTVEC's modular approach during the first two years of its existence have resulted

in a practice of defining learning outcomes from unit standards (Vaughan, interview, 1994). NZQA made a significant policy shift when it moved away from a unit of learning approach to the unit standards model (Lythe, personal communication, 1996). This meant that NZQA was to focus on standards setting and 'outcomes' only and would not be involved in curriculum development, as was implied by its adoption of the term 'units of learning' in the early days of its existence. A number of observers have commented that this separation constitutes a contentious move (Robinson *et al.*, 1995; Hall, 1994a; Hall, 1996a) and possibly could have negative results (Tuck and Peddie, 1995).

In contrast with the views expressed by NZQA officials Lythe and Richardson (see above), Vaughan (interview, 1994) maintains that the Authority has, in his words, adopted in 1992 a 'pure competence approach' (8) which has resulted in the formulation of unit standards based on a behaviouristic competence model. However, and this must be stressed, NZQA, in seeking an approach that would be more appropriate for a broadly conceived qualifications framework and usable for developing unit standards in the non-vocational areas of the NQF, has advanced from applying a 'competency model', as claimed by Vaughan, to the adoption of an outcome analysis approach to standards setting. However, it is argued by some that the current model is equally restrictive and unsuitable for application in education and training (see below).

The unit standards methodology entails a standardised approach to specifying standards in the sense that it is deemed applicable by NZQA to the whole range of education and training covered under the Framework. The key feature of this method is that it is predominantly concerned with the national standards bodies' identifying the 'key outcomes'.

The Authority defines outcome analysis as 'a process of identifying the outcomes of activities performed to achieve a purpose within the

FIGURE 4.1

OUTCOME ANALYSIS

context of an enterprise, industry or discipline' (NZQA, 1995b:8). It entails a top-down approach which starts with the organisation's or discipline's purpose statement, which is divided into levels of outcomes.

At the broader level, aims are specified which need to be achieved, whereas an outcome is termed a 'unit standard title' when it can be attributed to an individual. Central to this approach is a focus on the needs of an industry or discipline, not on what it already has (*ibid*). An outcome tree (see figure 4.1 above), or map, is developed for the reason of linking the unit standards clearly to the key purpose identified by the standard setters.

An outcome, as promoted by the Authority, describes why something is done or should be done (*ibid*, p.9). The focal point of this technique is the identification of the outcomes needed. Similarly, unit standards are said to focus on outcomes, not on processes (*ibid*). The Authority, on the other hand, does not dissociate itself entirely from methods such as task and training needs analyses, but cautions against them as they do not, in themselves, focus on learning outcomes (Richardson, 1996). Generally, it can be assumed that task and training needs analyses are methods which seem to fit Fordist work organisational structures and production processes much better and are essentially incompatible with a post-Fordist flexibility-driven work culture. This seems a reasonable interpretation if one considers NZQA's statement that outcomes are performed on an on-going basis and describe what should be achieved (NZQA, 1995b). However, Vaughan (interview, 1994), a former framework development officer at NZQA, calls attention to the fact that a lot of the unit standards are in fact process standards (9).

Although outcome analysis may have been portrayed as a standardised method which is deemed equally applicable and appropriate by NZQA in specifying standards at all levels of education and training (Richardson, interview, 1996), it is not unimportant to emphasise that NZQA does not prescribe a single method for data gathering. Ergo, it is mainly concerned with the attainment of an end result, not with the actual process (NZQA, 1995b) and the Authority is aware that the use of a single method, *e.g.* functional analysis, is a restrictive and biased way of gathering data (Richardson, interview, 1996). Consequently, in outcome analysis different techniques and, for example, processing tools can and are being used (NZQA, 1995b).

The Authority, again, has an interest only in national standard bodies identifying key outcomes and refrains from deriving functions or functional relationships. Its task is confined to facilitating the standard setting process. In a similar vein, registered assessors determine whether the meeting of performance criteria for the award of credit means that a person is deemed 'competent' or has achieved 'competence' or 'mastery'.

In developing unit standards, NZQA adheres to applying established procedures and processes. As shown in figure 4.2 below, this involves a number of steps in which stakeholders, *i.e.* an advisory group, a consultant and NZQA, conjointly co-operate. The framework development officers have, in the words of Richardson, (interview, 1996), 'an accountability to ensure the technical quality of the standards which have been developed by the national standards bodies'. In assuring their quality, individual officers undertake a critique of all the unit standards they are responsible before they can be submitted for registration.

In addition, NZQA has recently adopted two measures which aim at enhancing consistency in standards setting. Firstly, in an 'external

critical analysis process' unit standards are sampled from each batch, by staff trained to undertake this particular task, and evaluated against the technical registration criteria. Variances are documented and concerns are discussed with the responsible framework development officer. Secondly, once the standards have been endorsed by the advisory group or standards setting body, members of NZQA's framework registration group undertake an audit of the same sample and conduct an evaluation against the critique (*ibid*).

FIGURE 4.2

UNIT STANDARD DEVELOPMENT PROCESS		
PARTICIPANTS	ROLE	RESULT
NZQA FDO (1)	expert guidance: trains/advises consultant critiques US (2)	
Consultant function	analyses industry needs	US title matrix or MAP
	writes US	US
Advisory Group (AG)	input in analysis and evaluation of analysis and US writing results; and input into (4)	approves the above
NZQA AO (3)	expert guidance for establishing a	MAP (4) approved from US
NZQA QS (5)	evaluates and approves	US and MAP
	which leads to the registration of US on NQF	

Adapted from an unpublished NZQA diagram, dated 23/11/94

Key: (1) denotes Framework Development Officer; (2) unit standards; (3) Assessment Officer; (4) Moderation Action Plan; (5) Quality Systems.

The notion of unit standards and the implementation of NQF qualifications in the senior secondary school and post-school education and training areas have been the subject of quite considerable criticism and debate (Hall, 1995a; Hall, 1996a; Irwin, 1994; Irwin *et al.*, 1995; Carr and May, 1993; Wagner and Sass, 1992; Elley, 1994). It should be noted, however, that these concerns have been expressed mainly by academics and educators and partly for valid reasons, given the early development of the NQF with its focus on the vocational area of learning and on 'competence' (Vaughan, interview, 1994; Levick, 1993; Moorhouse, 1993/4). Viskovic (1993) makes a valuable point when stating that the requirements of a unit standard closely reflect Mager-style behaviourist objectives, which require performance ('terminal' behaviour), criteria (the attainable standards), and conditions (under which to be performed) (Mager, 1968; Sass and Wagner, 1992; Hall, 1995c; Robson, 1996).

This view is shared by Hall (1995a) who contends that the roots of a unit standard lie firmly in behaviourist theory (10), a position with which I concur. However, it is particularly his analysis of the notion of a unit standard that is useful. He strongly argues that the unit standards have been sold to the public as performance standards (Hall, 1996a; *cf.* Sass and Wagner, 1992; *cf.* Croft, 1993) in the sense that an expectation is raised that teachers and trainers are able to apply consistent judgements to their assessments in different contexts, and that NQF end users will have a clear understanding of what has been achieved. This, Hall (1995c) asserts, is only attainable in a limited number of cases, *e.g.* typing speed, and does not even apply to all vocational-type courses.

Hall argues that the performance criteria given in the majority of unit standards are no more than a statement of objectives which are mostly written in outcome form (*ibid*; Irwin *et al.*, 1995). They do not, and this is a

decisive point, identify the level of the performance that is required. Paradoxically, this is in a sense a moot point, given NZQA's pragmatic approach to the setting of national standards in education and training and the fact that relatively limited academic debate on the issue in question has taken place in New Zealand (11).

Others have asserted that the detailed specification of learning objectives, as inherent in the competency approach, is causing a fragmentation of the training process. Winning (1993:19) argues that learning to become a tradesperson is a developmental process and that this is embedded in what she describes as a 'culture of practice' which is, in her view, as important as the acquisition of technical skills. And in her opinion, the practice of gaining credits for modules may mean that an individual will fail to experience the personal and vocational developmental possibilities which, she reckons, are essential in a traditional 'time-serving' apprenticeship (*ibid*, p.20).

Some educators appear to be particularly concerned that the unit standard format may engender a belief that learning is sequential, value-free, and competency-oriented (Carr and May, 1993). The very assumption that there is a hierarchical relationship between levels of learning, as expressed in the curriculum and qualifications frameworks, is fundamentally flawed and has been validly contested. Educational research has shown that learning is seldom hierarchical nor is its progress smooth (Willis, 1992; Elley, 1992; Carr and May, 1992) but is, contrarily, 'reflective, constructive and self-regulated' (Herman, 1992:75, quoted in Codd *et al.*, 1995). One could plausibly argue, on the other hand, that the pragmatic and atheoretical approach to qualifications restructuring and training reform serves a definite purpose and subsequently has validity in its own right, which is a point I fully accept. However, the value of and the need for independent and critical research into the purpose and the

direction of the radical changes in education and training is self-evident and important.

In general terms, criticisms expressed about the NQF and NZQA in the main appear to derive from the school sector and the universities since they foresee that the expansion of the framework(s) into their sectors will encroach heavily on their own affairs. It is in this respect, that their views must be taken into account, which will be done in the next chapter. However, the main focus in this work is on the vocational area of the NQF, *i.e.* NQF levels 1-4 or the National Certificates placed on one of those levels.

Regardless of NZQA strongly promoting parity of esteem between education and training in a 'seamless' educational structure and their advocacy of the notion of 'standards' as the NQF's key feature, the concept of 'competence' appears to be consistently associated with vocational education and training and hence with National Certificates, by framework critics, the general public, and other commentators (Irwin, 1994a; Carr and May, 1992; Curtain and Hayton, 1995; Griffin, interview, 1994). It is my contention that this perception is in part perpetuated by NZQA itself, since unit standard writers are required to recognise performance levels in terms of either capability or competence (NZQA, 1995b). And to date, as a further point, most registered standards on the NQF are still vocationally-oriented (*cf.* Levick, 1993).

In defence of NZQA, it is clear that the Authority has advanced from using a restrictive task-oriented competency model to an outcome analysis approach which allows for the inclusion of different data gathering techniques. Therefore, it is inappropriate to make unqualified criticism towards NZQA's former approach. The shortcomings of competency-based education and training systems are irrefutably manifold and widely recognised, and range from concerns for behaviourism,

reductionism, the idea that it is implying a mechanistic and atomistic approach to learning and assessment and a neglect of context (Ashworth, 1992; Wolf, 1994a; Ashworth and Saxton, 1990; Winter, 1992; W.Hall, 1994; Gonczi, 1993; *cf.* Irwin, 1994a).

NZQA's claimed integrated and holistic approach to learning and assessment (NZQA, 1996a; Barker, 1995), as promoted under the Framework (see figure 4.3 below), will be examined in a section below (12). It is not clear at this point whether this approach is superior indeed to the former model, in whatever way one may define superior. It may well be, and this is purely an assumption, that the new qualifications approach may be criticised for the same or other reasons. However, it is evident that the application of the unit standard methodology to all areas of learning is controversial, while some critics claim that it is downright inappropriate (Irwin *et al.*, 1995; Irwin, 1994a; Hall, 1996a). Moreover, the terminology surrounding the NQF appears not only confusing but, according to Carr and May (1993:7) has 'determined the model' and hence is, *ipso facto*, implying a consistency that may not be there (ERO, 1995a).

Framework levels are yet another 'quality' aspect in setting the standards for NQF qualifications and is deemed to be a key feature in a standards-based framework (*ibid*). They mark 'the level of difficulty' (13) (NZQA, 1996a:58) and were determined pragmatically (Methven, 1995), using the benchmarks from the existing education and training structure (NZQA, 1994b:44). Although, NZQA asserts it has researched the United Kingdom and Australian framework models thoroughly, it is also claiming that overseas exemplars have been absent. It appears, quite contrarily, that the notion of levels have been 'intuitively arrived at' (Wagner and Sass, 1992:2) and that framework levels have been validated and modified once they were developed (*cf.* NZQA, 1994b).

The responsibility for the level specification of unit standards lies initially with advisory groups. The role of NZQA is to ensure that 'the outcomes expressed and the evidence of the outcome align with the appropriate level descriptor' (Richardson, interview, 1996). The Authority also has developed criteria for evaluating the technical quality of the unit standards which concern their quality in terms of their 'fitness for purpose', which includes their format (NZQA, 1995b).

Against this background, it is significant to point out that unit standards (and NQF qualifications) are required by the standard bodies, not by the Authority. Although NZQA's NQF latest level descriptors (Methven, 1995) are not derived from occupational functions, the Authority had been advised by researchers that the NQF levels should be written for an occupationally-based qualifications framework (R.E.Taylor Consultancy, 1992; Wagner and Sass, 1992). This advice was not followed and therefore a specific link to occupations was never established in NZQA's standards-based framework (*cf.* Peddie, n.d., p.2). Richardson (1996) clarifies that only some aspects of former level descriptors have in the past referred to some aspects of occupational levels or workplace destinations. The number of NQF levels, on the other hand, was determined pragmatically 'using benchmarks borrowed from the existing education and training structure' (NZQA, 1994b:76). In NZQA's latest level descriptors four broad descriptor categories equally apply to each NQF level, *i.e.* knowledge, skills and attributes; tasks and procedures; accountability; and purpose, comprising 12 specific level descriptors in total (Methven, 1995).

Nevertheless, it seems to be quite obvious that neither the latest set of descriptors nor the previous ones employed by NZQA necessarily coincide with educational levels *per se* (Robinson *et al.*, 1995) (14). It appears, and this is an important point, that to date (December 1996)

FIGURE 4.3

Source: NZQA, 1996f:9

NZQA has not been very successful in promulgating the conceptual basis for the framework levels to the general public, being one of the major framework end users 'groups' (15). In the view of NZQA (1994b), precision in NQF level description is not as important as validity, although the former is seen to be an element of the latter.

The eight NQF levels, as depicted above, have been defined by the Authority in terms of 'progressive stages of competence or achievement and complexity in units assigned to them' (NZQA, 1993d). The progressive degree of (learning) 'difficulty' these levels purport to represent are not grounded in educational theory (Jones, 1994a) and appear to have been arranged merely for administrative reasons and on an *ad hoc* basis. Jones (*ibid*, p.4), in a report to the Qualifications Authority, suggests that the NQF levels 'should be linked with qualitatively different learning outcomes that are theoretically based and empirically validated'.

However, he points out that it will not be possible to establish 'neutral' educational structures or frameworks (*ibid*, p.7) as these are by definition what I would call 'socially and politically defined constructs'. It is clear that there is a significant gap between the 'convenience' of the current NQF level specifications (Methven, 1994), and a call by others, mainly educators and academics, for more 'theorisation' (Robinson *et al.*, 1995; Jones, 1994a) and more research generally into the NQF or specific aspects of it (Croft, 1994; Irwin, 1994a; Gibbs and Aitkin, 1995). On the other hand, Barker and Lythe (interviews, 1994) contend that NZQA has undertaken considerable applied research which involved, among other aspects, an appraisal of developments in education and training in selected overseas countries (QA News, 1994a) (see chapter three). McQueen (interview, 1994) claims that 'the argument that we need research is an argument for delay', while favouring research that feeds back in.

The process for developing NQF qualifications is almost the same as the one applied for unit standards, with the exception that a sub-group of the advisory group evaluates the qualifications analysis conducted by a consultant and approves the draft qualifications and makes a recommendation to the advisory group for final endorsement (NZQA, 1995b). In designing NQF qualifications, standard setting groups have to adhere to a number of technical rules set by NZQA. For example, a National Certificate must have a minimum of 40 credits, whereas a National Diploma is required to have at least 120 credits at level five or above (NZQA, n.d./g).

The terms 'National Certificate' and 'National Diploma' do not, however, indicate a qualification of any specific 'size' or level because the standards setters are allowed to use any number of the relevant unit standards from any level of the Framework (NZQA, 1994b). Although a qualification can be of any shape, they should fit the 'profile' of a person who will use it and the different NQF qualifications should have, as a 'rule-of-thumb', at least a 50% difference (NZQA, n.d./g, pp.203-4).

Some of the principles accorded with the design and the compilation of standards-based qualifications are that they will be national, have an internal coherence and also follow a logical sequence and progression of names. Moreover, they should recognise the need for broad transferable skills as well as what NZQA terms as 'essential academic and personal skills' (*ibid*, p.208) (16). Qualifications should include a mix of compulsory, core and option unit standards and, as a last point, 'qualification packages' should create pathways for learners, credit transfer and enable 'coherent skills building' in order to provide learners with career options (*ibid*).

In facilitating the development of unit standards and NQF qualifications, NZQA has developed a procedural critical path for advisory groups to consider following. An advisory group, however, has responsibility for determining the 'critical path' for its project. This process usually involves four meetings and overlays the procedure outlined in figure 4.2 above. As a guideline NZQA (1995b, section "The Paperwork", pp.3-5) aims to have unit standards and qualifications registered 45 weeks after an advisory group meets for the first time (*cf.* Richardson, interview, 1996). However, it should be emphasised that it is the aim of NZQA to get standards registered as quickly as possible without compromising their fitness for purpose (Richardson, 1996).

GENERIC SKILLS AND THEIR TRANSFER

Considering the aim and the importance attached by the central government to achieve sustained economic prosperity and its concomitant thrust to increase labour mobility and raise the skill levels of the population, the very issue of 'generic' and 'essential' skills (17) has gained prominence in educational and economic reform debates in New Zealand in the last decade (Department of Education, 1986; Ministry of Education, 1990c; 1993d; Werner 1995). Callister (1990:16), in a report commissioned by the New Zealand Planning Council, states that

...for New Zealand as a whole to be successful in the new economy, everyone needs to lift their level of basic generic skills...Specialist skills ...need to be continually built on this base.

It is assumed in the post-Fordist production paradigm that people who have generic skills, *e.g.* problem-solving, communication, team-work and higher-order thinking skills, are able to better adapt to the continually changing demands of the economy (Townsend, 1993). Because unskilled work in advanced industrial countries is gradually diminishing, it seems to

be a reasonable argument that generic skills are a desirable currency for individuals to have.

From an economic or labour market perspective, however, the notion of 'transfer-ability', as coined by Hayes (1981, cited in Drake, 1988), is considered to be the key quality for enhancing labour mobility. It has been defined as 'the ability to transfer skills to a new environment and to build new skills onto old ones' (*ibid*, p.315; Bridges, 1987). This explains, in part, the current preoccupation with the notion of generic or transferable skills in education and training programmes, which is an international phenomenon (Werner, 1995; Tribe, 1996; see also chapter 8).

The use of the terminology concerning 'generic skills' in both the literature and in practice is inconsistent and problematical, because the terms transferable, core, generic, and essential skills, among some others, are often employed interchangeably (Bridges, 1993). Subsequently, it is apt to describe 'generic skills' as a collective term that captures in a rather general sense the essence of the other cognate notions too. To this end, 'generic skills' are defined here as being those skills which apply to work generally rather than being specific to particular occupations or work in industries (*cf.* NZQA, 1993e:6) and which are essential for effective participation in further education and in adult life (Committee to Advise the AEC/MOVEET on employment-related Key Competencies for post-compulsory education and training, 1992; Townsend, 1993) (19).

It is important to note from the outset that few skills are genuinely transferable across widely different contexts (Townsend, 1993; Bridges, 1993; Barrow, 1991; Hall, 1995c), since research has demonstrated that transfer is specific (Gray and Orasanu, 1987). Accordingly, it is believed that only some skills transfer spontaneously to other settings (Misko, 1995; McPeck, 1981). Another problem area, as seen by Misko (1995:35), is that we may never be sure that transfer has occurred or that 'transfer ability

may always translate into effectiveness in a new job'. And even if there is evidence that transfer was successful in one domain of knowledge, we cannot be assured that this is sufficient to enable a person to transfer an ability to another domain (Bridges, 1993).

Research into the general transfer of learning, which is believed to involve skills which were context-free, has also failed to produce conclusive evidence of this occurring (*cf.* Townsend, 1993). Regardless of both general and domain-specific transfer being seen as not unproblematical issues in education and training, transfer, of course, takes place. A number of factors may facilitate or inhibit transfer. These include motivation, confidence, original learning, repeated and varied practice, prior knowledge, prompting, feedback, ability, task familiarity and task similarity (Misko, 1995).

Motivation and confidence are clearly decisive factors if the transfer of generic skills is to be successful and without it, Stacz *et al.* (1990:52) maintain, 'generic skills will be wasted'. In addition, all new learning or 'original learning' is likely influenced positively by prior learning (Townsend, 1993; Druckman and Bjork, 1991). Generally, positive transfer across domains, research has revealed, is dependent upon (a) the similarity of knowledge and content structures in the domains concerned, (b) the intellectual and educational abilities of the learner, and (c) the breadth of depth of the learner's educational and work experience (Hall, 1995a:20).

Salomon and Perkins (1989, cited in Townsend, 1993) argue that transfer is not a unitary phenomenon, but they believe that it can occur via two different routes which involve different mechanisms (*ibid*, p.19; *cf.* Stevenson, 1993). The 'low road' transfer route involves spontaneous, automatic transfer of highly repeated practice and includes little reflective thinking. In contrast, the 'high road' transfer route is an explicit attempt 'to provoke or convey an instruction in response to some activity' (Townsend,

1993:20). It contains reflective thinking in that students are actively stimulated in instruction to relate a skill or ability to other areas or domains (*ibid*).

Thus for positive transfer to occur, repeated and varied practice is an essential prerequisite but not the only condition because there must also be a strong prior knowledge in the domain and the 'skills' have to be learned well in the first place (Misko, 1995). The teaching of the generic skills, Townsend (1993) advocates, should be based on a curriculum that is focussed on problem-solving, so that learning is linked to real-life problems. In a similar vein, authentic experiences in the workplace are likely to improve learning although requires learner commitment (Misko, 1995).

An important point to make is that the instruction of 'generic skills' should not be decontextualised (Townsend, 1993), which is a view commonly accepted among educational researchers and educators. Most skills, as is recognised, require a context in which they are developed (Hall, 1995a) and in which they can be taught and assessed (Elley, 1995; Ashworth, 1992; Wolf, 1991a).

NZQA (1993e), in its consultation document "Essential Skills and Generic Skills in the National Qualifications Framework", promulgated that generic unit standards form an important component of the NQF, in that they are purported to make a significant contribution to the achievement of a coherent NQF. While it is one of the principles of NZQA to minimise overlapping of standards and qualifications in the NQF, some of the unit standards will, understandably, be portable across occupations and industries. In an internal document on the issue of transferable skills, NZQA (n.d./a) expresses that the shift in attitudes is more important than the skills to be agreed on.

In a submission to NZQA, NZEF (1994b) states that generic skills will be central to the future workplace requirements. Employers, the Federation points out, expect that young people will possess the following generic skills before entering employment: problem solving, personal qualities and social skills, numeracy, technology/computer skills, and communication and information handling skills. In addition, NZEF (*ibid*, p.3) identifies workplace-specific generic skills which include areas such as employment rights and responsibilities, customer services, occupational safety and health, management, technology applications and business communication.

An NZQA-conducted analysis of submissions it received regarding its consultation document shows that the Education Ministry is concerned about the lack of an adequate research base that underpins the Authority's proposals (NZQA, 1994c); while others have pointed out that there is a lack of theory in the area of transferable skills in the NQF (Robinson *et al.*, 1995). The Ministry of Education also opposes context-free assessments on the basis that there is no empirical support for the view that decontextualised skills can be developed (NZQA, 1994c).

NZQA's approach to the formulation and development of transferable or generic skills in the NQF has received some further criticism and general comment. Carr and May (1993), for example, rightfully suggest that we should be cautious about too many 'generic' unit standards that seem to fit a variety of domains. It is apparent from this, and earlier comments, that the debate about generic skills is a complex one which requires further research in New Zealand.

Although the Authority has acknowledged that research into (generic) skill transfer at the higher levels of the Framework is limited (NZQA, 1993e:14), it also needs to be mentioned that the Core Generic Advisory Group intends to approach NZQA's Policy Monitoring and

Review section recommending that more research into this matter is needed (Norrish, personal communication, 1996). It is evident that the ongoing development and implementation of higher level qualifications on the NQF will necessitate such research to take place.

Given this context, and as suggested by commentators of qualifications frameworks in Australia and England, there is sufficient reason to heed the promotion of assumed transfer of learning (W.Hall, 1994; Ashworth, 1992). Subsequently, it seems to be logical, from an educational viewpoint, that the policies and practices in relation to transfer under the Framework should be foremostly pedagogically sound. Because the idea of credit transfer in the NQF clearly ties in with the notion of transfer of learning, this topic will briefly be addressed. It should be mentioned beforehand that NZQA (1995b:26) stresses that 'all unit standards should be based on *transferable* attitudes, knowledge and skills' (emphasis added).

Registered unit standards in the NQF are contextualised by the inclusion of a range statement in the unit standard specification which provides the context and the conditions associated with any of the performance criteria or elements (*ibid*, p.4). Range statements are therefore concerned with the clarification of the standards and/or the evidence that is needed to ensure that the standards have been met (*ibid*, p.31). A range statement, according to NZQA, may include areas such as health and safety regulations, but may also contribute towards the identification of the underpinning knowledge required for assessing competence.

NZQA (*ibid*, p.36) instructs its unit writers, that these statements must be complete and cover the required range of competence, and that they must be unambiguous and clear and not open to interpretation from differing sectors within the industry. In commenting on the English NCVQ Framework, Ashworth (1992) is sceptical as to whether the development of

range statements will provide a genuine indication of the scope of transfer of competence across different contexts. It is his contention that this problem is not likely to be solved 'merely by assessing knowledge and skill in terms of competence' (*ibid*, p.14).

On the subject of range statements, Stewart and Hamlin (1992a) note that there is an implication that any context which does not fit these statements will have to be judged invalid for the purpose of assessing competence against the standards. Subsequently, they argue, there is no basis for referring to standards as 'generic' or 'national', since contexts are artificially created. And it follows, in their thinking, that different 'standards' exist in different (organisational) contexts (*ibid*, p.28).

Hall (1995c; 1994a), in commenting on the New Zealand National Qualifications Framework, argues that credit transfer needs to take account of the objectives and the content and/or context of the initial learning, with which he stresses the predominance of educational content and purpose over issues relating to transfer. In his view, the approval of transfer of credit should not be automatic in the case a certain unit standard is common to two courses of instruction, as is allowed under the provisions of the NQF system, unless they are embedded in similar content. However, Hall (interview, 1996) supports the guidelines on credit transfer that are given in the appendix of the TAG report which distinguish between specified and unspecified credit. Furthermore, it is difficult not to question the validity of NZQA's (1995b:44) assumption that the attainment of a NQF level three outcome is sufficient evidence in itself that a learner has also the abilities specified in any level two outcome.

It needs to be stressed, however, that NZQA's outcome approach allows credits for a unit standard to be granted towards more than one qualification, provided, of course, that the standard is a component of those qualifications (NZQA, 1994b). Interestingly, not only credit can be

used more than once, but also the evidence that a person has met 'certain performance standards' (Richardson, interview, 1996). A person, on the other hand, may (also be required to) submit additional evidence in order to gain credit for the unit. Thus two transfer mechanisms exist in the NQF, *viz.* credit transfer and evidence transfer (see also below).

In a recent publication, NZQA (1996b:18) uses the term core skills, or core generic standards, and describes it as a 'field' which fits into the Framework and is designed for the specific purpose of recognising 'both life skills and those which apply to a wide variety of workplaces'. This field includes the following five domains: work and study skills, social and co-operative skills, self-management, driving, and law-related education, which are all situated at the entry levels of the Framework. Learners are able, in this system, to obtain credits for the core generic skills in a range of learning environments. Many of these standards are already part of registered NQF qualifications or will become part of those still under development (*ibid*).

Moreover, NZQA is currently overseeing the development of a National Certificate in Employment Skills which will be situated at level one of the Framework (Norrish, personal communication, 1996). And it will contain those skills employers have identified as being desirable for job-seekers, such as communication skills, numeracy, personal skills (working with others, improving one's own learning and performance), and information skills (NZQA, 1996b:18). Students at the senior secondary school will be able to gain credits for this qualification provided they meet the stipulated unit standard requirements (Norrish, personal communication, 1996).

ASSESSMENT AND MODERATION

Under the National Qualifications Framework, standards-based assessment (SBA) is assessment that is gauged against registered unit standards (NZQA, 1994b). Conversely, these unit standards are 'simply tools for assessment...' (*ibid*, p.36). Assessment, in the view of NZQA, is a 'process which is designed to gather information for a *specified purpose*' (Hood, 1993:1) (*italics in original*). Hood (*ibid*) points out that the purpose of assessment has changed significantly in recent times. Thus there is a body of opinion and evidence that suggests that a move towards criterion-referencing and school-based assessment constitutes an international trend in educational policy (Wolf, 1993; Tuck and Peddie, 1995; Broadfoot, 1992). Its focal point has shifted from a focus on selection to assessment for reporting on performance.

In New Zealand, there is clear evidence available that a move away from norm-referenced assessment to school-based assessment and criterion-referencing is, in general terms, considered to be appropriate as well as desirable. In fact, this emerging preference for a new assessment paradigm can be seen as an almost inescapable development given the history of internal assessment in New Zealand public schools (School Certificate Examination Board, 1972; Lennox, 1995; Lee and Lee, 1992) and also, as maintained by NZQA (1994b) in the light of widely perceived shortcomings of norm-referenced assessment.

In this last respect, NZQA has articulated its position clearly when asserting that norm-referenced assessment is a tool (and a 'mindset') which ensures that a not insignificant proportion of the candidates fail regardless of the standard of performance achieved (Hood, 1993; NZQA, 1994b). Or, put differently, it constitutes a 'system of compulsory failure' which suits an élite approach to tertiary education (Barker, 1995:21,23; *cf.* Chion-

Kenney, 1994). The Authority contends that standards-based assessment emphasises the positive side of learning, in that credit will be given for what is known and understood, as distinct from purported norm-referenced measurement practice (NZQA, 1994b). Before turning to the intricacies of the New Zealand standards-based assessment approach, some terms need explaining.

Firstly, a norm-referenced test is used 'to ascertain an individual's status with respect to the performance of other individuals on that test' (Popham, 1990:26). Thus, its main concern lies with both the rankings and the relative performances amongst individuals. Another feature of this type of measurement is that it does not convey, in absolute terms, a great deal about the quality or content of learning and attainment (Vincent, 1990). A criterion-referenced test focusses more on what is learned and sets out 'to ascertain an individual's status with respect to a defined assessment domain' (Popham, 1990:27). According to Popham (*ibid*), this type of evaluation allows us to determine what a candidate can or cannot do, because of the clarity with which it describes whatever it measures.

Standards-based assessment, as is currently introduced under the National Qualifications Framework, is a form of criterion-referenced assessment (Croft, 1994), not the other way around, as is claimed by NZQA (Hood, 1993) (19). In the New Zealand context, it encompasses both competency-based assessment, as typically employed in vocational learning, and achievement-based assessment, which is used in general education (Sass and Wagner, 1992; Peddie, 1992) (20). Thus SBA is used by NZQA as a generic term that encompasses a particular mode of assessment, while its key principle is that assessment must be administered against the level of performance required by the unit standard for the award of credit (NZQA, 1996a) (21).

According to current NZQA policy, there are essentially three major aspects to standards-based assessment. Firstly, because it focusses on what a learner is capable of doing, it is coined and promoted as an outcome approach. Secondly, it includes knowledge, general attributes, skills as well as tasks that are critical to effective performance. Thirdly, the context in which these will be employed are taken into account (NZQA, 1994b; NZQA, 1995b). The Authority is clear on the issue that knowledge can and should be assessed where this is deemed appropriate and that single unit standards may include the demonstration of knowledge or are entirely knowledge-based (NZQA, 1994b:38).

Underpinning the standards model are different sets of assumptions which, according to Taylor (1994:243), are: we can set educational standards and strive towards them; most students can internalise and achieve the standards; very different student performances and exhibitions can and will reflect the same standards; and, educators can be trained to internalise the standards and be fair and consistent judges of diverse student performances. Thus the assessment purpose is clear and the same for all, *viz.* the achievement of the standards promulgated. These particular sets of principles are used in the NQF and actively promoted by NZQA (1994b).

A salient feature of the criterion (or standard) based assessment approach is, as indicated above, the centrality of the concept of validity, in that the test should measure what it purports to measure (Popham, 1990; Wolf, 1993; NZQA, 1996a). The specification of clear standards and criteria is therefore of paramount importance in this paradigm (Wiggins, 1993; Sadler, 1987). Whether standards can be set completely and incontestably clear and transparent is obviously a moot point. There seems to be a considerable degree of acceptance amongst academics and policy makers that this, of course, is simply unattainable (Wolf, 1993; Hall, 1995b; Barker,

1995; Lythe and Bennett, interviews, 1996). In a criterion-based assessment paradigm, standards and criteria are set arbitrarily (Sadler, 1987; Hawe, 1995). It is particularly relevant with respect to this last statement to refer to Popham (1978:168) who reminds us that there are two definitions of 'arbitrary' one could apply to the setting of standards in education and training. The first one being 'selected at random and within reason' connotes a negative association, whereas the second definition: 'determinable by a judge or tribunal', carries a positive value and which is the one he promotes. Simply because human judgement in the setting of standards is unavoidable it should be accepted and employed positively.

Sadler (1987) makes a distinction between 'sharp' and 'fuzzy' standards. Whereas the former are characterised by precise boundaries, as is the case with numerical cut-offs, the latter category constitutes verbal descriptions which are always, according to him, to some degree vague or fuzzy (*ibid*, p.202). He postulates that fuzzy standards are not necessarily inferior to sharp ones and, by implication, are deemed appropriate and useful in guiding assessments (*ibid*, p.205), simply because in the real world clear boundaries between objects are non-existent. To this end, it is useful to note that the Authority acknowledges the 'fuzzy' nature of standards and sets out to specify outcomes as clearly as possible (Barker, 1995).

The issue of clear and reliable standards, however, is unquestionably a critical one. And I agree with Peddie and Tuck (1995) who assert that vague statements of objectives will render an effective moderation almost impossible. By contrast, too precise statements are likely to have a restraining effect on the teaching process. The issue of reliability, which is vital in a norm-referenced system, is implicitly treated in criterion-referencing as 'guaranteed by the transparency of the specifications' (Wolf, 1993:18). According to Burke and Jessup (1990:195,

quoted in Wolf, 1995a), reliability is not an issue in those circumstances in which external, implicit criteria have been established and, henceforth, there is an external reference point for assessment.

This point is also being stressed by Jessup (1991:191) who asserts that in a criterion-referenced assessment model, validity is all that matters and, subsequently, 'we should forget about reliability'. Thus, in this line of thinking it is assumed that reliability is a concept that is applicable to norm-referenced measurement systems only, because of its focus on differentiation between individuals (Steadman, 1995). Wolf (1993), on the other hand, believes that issues of reliability do not disappear with criterion-referencing; a view which is consistent with Popham's (1978:143), who is of the opinion that 'good criterion-referenced tests should be reliable, just as good norm-referenced tests should be reliable' (*cf.* Gipps, 1995).

In turning to the New Zealand situation, the term standards-based assessment is used 'when the measurement or the outcome is assessed, in other words "analysed", against some fixed criterion or level of achievement known as a "standard"' (Peddie, 1992:23). Peddie (*ibid*) also states, in an NZQA-commissioned report, that a whole set of standards may be involved, and that in theory it is possible for *all* learners to achieve the pre-determined standard. Thus in the light of the rhetoric of student's gaining improved access to learning opportunities under the NQF, SBA is believed to enhance educational equity. Gonczi *et al.* (1990:8) assert that 'competency-based standards will help certain groups whose skills may not at present receive due recognition'. Darling-Hammond (1994) makes a cautionary note regarding this point when she states that this is likely to occur only when assessment practices are transformed as well (*cf.* Wolf, 1995a:96).

It is within this particular context that it should be realised that in a standards system the 'clear specification of outcomes is only one aspect of sound and fair assessment' (Wolf, 1993). This, evidently, is a position NZQA concedes to (Barker, 1995:27). NZQA's (1996) publication 'Learning and Assessment' clarifies this issue further by explicitly stating the prime importance of assessment evidence in the NQF standards-based assessment approach. According to NZQA, evidence of learner performance can come from a variety of sources, which includes tests and examinations. Much of the evidence can be collected in the normal learning activities, and it is possible to collect evidence from more than one sample (*ibid*, p.5).

NZQA's approach to evidence collection and performance evaluation is underpinned by a number of key principles. In NZQA's view, the assessment methods used must be appropriate to the performance assessed and be fair to all learners, and also will be integrated with work, learning, or training as evidence collection can be ongoing. And, furthermore, these methods must be manageable, in the sense that they should be readily arranged by assessors and not interfere unduly with work or learning (*ibid*, pp.7,55). Evidence is required to be valid ('fit for purpose'), direct (be as similar as possible to the conditions of actual performance), authentic, and sufficient (*ibid*, p.7). The last two criteria mentioned do require some explanation.

Reliability, in its traditional sense, means little in a standards approach, according to NZQA (1994b:34) but, on the other hand, it elucidates that mechanisms for ensuring reliability are built into the registered unit standards, *viz.* moderation action plans, performance criteria, range and context statements, and the criteria for accreditation of workplace assessors and providers. Yet sufficiency is now regarded as a key concern (23). In the Authority's view, the

quality and the quantity of evidence will establish with

confidence that performance criteria have been met and that performance to the required standard could be repeated with consistency (NZQA, 1996a:55).

It seems obvious that the term sufficiency is being used for the purpose of making the assessment of collected evidence more accurate and thus more reliable. Hence, reliability, as suggested by Wolf and Popham (see above), continues to be of importance in the New Zealand standards system, though in an implicit way. Sufficiency, it appears, relates primarily to an assessor's ability to evaluate the evidence presented by a candidate consistently and to the requirements of the unit standards (*ibid*, p.44).

Authenticity, unlike sufficiency, is a term frequently associated with criterion referencing in recent assessment literature (*cf.* Torrance, 1995, and Wiggins, 1993) and identifies the extent to which assessment focusses on authentic or contextually meaningful tasks. In the view of the Authority, 'authentic evidence' is that which is attributable to the person being assessed (NZQA, 1996a). Put differently, the onus is on the assessor to be sure that what a candidate submits in terms of evidence is his or her own contribution (NZQA, 1994b). However, in establishing the authenticity of the evidence presented, assessors will need to discuss the evidence requirements with a candidate. The inclusion of and the emphasis on elements of human judgement and dialogue contribute, in the view of Wiggins (1989:704), to an accurate and equitable evaluation.

Assessment in the New Zealand standards system is, as a consequence, open in the sense that learners are expected to understand the assessment process and the criteria applied, and also to accumulate the evidence required. Ideally, as NZQA (1996a) envisages, learners will undergo an assessment when they feel confident of success. These assessments can take place at any time and in a variety of appropriate places. An essential principle underlying the new assessment approach is

its explicit focus on a learner achieving standards of performance which leads to the award of credits. As stated by NZQA (*ibid*, p.20), work experience, time serving, prior course attendance or prior learning (23) all have strongly reduced relevance in a standards-based assessment system.

Thus, in the view of NZQA (1996a), the candidate's role is critical in both learning and assessment under the NQF. Assessment, Bowen-Clewley (personal communication, 1996) explains, should be integrated with work and learning, and ideally should be an inherent part of a person's developmental process. She believes that in the workplace, assessment should be based on four principles, which are: a maximum use of 'performance events', which produce valid evidence across a number of elements; allowance for clear presentation and cross-referencing of evidence; a maximum use of naturally occurring and readily available evidence; and candidates should take an active role in planning and collecting of evidence (24).

As regards workplace assessment, a number of principles are being advocated by NZQA (25). Assessment, for example, must fit within, and reflect on, the work environment; it must be simple and effective and needs to be completed on the job; assessment should never be an end in itself but, again, should be a function of an employee's developmental process (*ibid*). Accordingly, assessment is being viewed by the Authority as an evolving process between the trainer and a candidate. Furthermore, assessment should be appropriate to the level of work and responsibility that is expected of the participant. The responsibility, on the other hand, for the overall quality for on-the-job assessment rests with the Industry Training Organisation (Chisholm, 1995).

Bowen-Clewley (personal communication, 1996) also points out that 'competence' is all about intelligent performance, and essentially reflects the tenets of the post-Fordist model of industrial development. A worker

or employee is required not only to perform individual tasks but also to manage a number of different tasks within the job as well as contingencies. In addition, a competent, and thus 'intelligent' person, should also have a range of social and personal skills and be able and committed to ongoing learning. Workplace assessment is also believed to be fundamental to maximising opportunities for learning (*Framework Update*, 1993).

A major advantage of standards-based assessment, as identified by NZQA (1994b), is that it allows assessors to make judgements from diverse evidence. In the new system, a candidate is permitted, when failing to meet the required standard, to submit additional evidence. It is from a broad base of evidence, that 'competence' can be inferred from in a valid way, and by means of using a variety of assessment techniques (Gonczi, 1993; Hager, 1994), which is a position obviously shared by NZQA (1994b; 1996a). Thus in New Zealand's SBA system, an increased emphasis is placed upon professional, qualitative judgement by teachers and assessors (Strachan, 1995; Sadler, 1987) despite a traditional distrust that seems to be associated with this particular approach (Irwin, 1994a; Taylor, 1994).

On the subject of time serving, this, contradictorily, *has* relevance in the National Qualifications Framework. Not in the least because a close inspection of the structure of the NQF (see below) reveals that each level seems to correspond approximately to one year of study by full-time, mainstream students (Wagner and Sass, 1992:22). Ergo, Framework credits are set at roughly 10-12 hours per credit, based on hours of instruction (*ibid*, p.26). Therefore, the notion of time serving, which was so characteristic of the traditional New Zealand apprenticeship, is in a sense being perpetuated in the NQF. It remains to be seen whether or not this is a relevant point or not (see the next chapter).

Thus the above demonstrates that NZQA rejects a norm-referenced measurement model. Conversely, it favours and promotes a broad assessment system in which candidates are required to present relevant evidence for professional judgement against the requirements of unit standards (Barker, 1995). Essentially, criticisms directed towards NZQA's approach to SBA have focussed on a number of issues. The move towards and the implications of separating the standards setting and curriculum development processes, as alluded to earlier on, is one of those and will be examined in some further detail in chapter five.

In Croft's (1993:9) view, NZQA appears to have 'over-emphasised the criterion-referenced advantages of standards-based assessment' while, at the same time, overplaying the negative features of norm-referenced assessment. This statement is true, but is an understandable one from NZQA's perspective of wanting to promote its new assessment model. However, Croft's view that the Authority has disregarded the comparative nature of SBA is acceptable, as clearly norm-based considerations are an inherent part in a standards setting process, and in criterion-referencing in general (*cf.* Popham, 1978). Crombie (1995:104), for example, in commenting on the New Zealand Curriculum Framework argues plausibly that the use of a levels-based framework implies a component of norm-referencing and carries an assumption that outcomes will be quantifiable, which is a statement that is equally applicable to the NQF.

Some academics strongly disagree with NZQA's intention to apply standards-based assessment to all subjects covered by the NQF (Croft, 1993). Elley (1987), while acknowledging that criterion-referenced assessment is highly commendable for school-based formative functions, contends it is less appropriate for the summative purposes of reporting to parents, employers and tertiary institutions. He argues that criterion-referenced assessment should be supplemented with a 'norm-referenced

across-the-board standard', which is, as he points out, the case overseas (*ibid*, p.33).

Critics of the NQF have tended to focus their concerns mainly on a number of related issues, *e.g.* a perceived lack of clarity of the main concepts on which the qualifications framework is based, *i.e.* the notion of the unit standard and 'standards' *per se*; a lack of a research base to support the design and the implementation of a standards-based system in New Zealand; and, lastly, the perceived negative pedagogical implications these changes are believed to have on teaching and learning (Irwin, 1994a; 1994b; Irwin *et al.*, 1995; Hall, 1995a; Hall, 1996a; Croft, 1993; 1994; Elley, 1995; Tuck and Peddie, 1995). And, as a last but important point, it is assumed by NZQA (1996a) and the Ministry of Education (1994c) by virtue of consistent proclamation that a standards approach will be a more suitable and superior approach than a norm-referenced assessment system (*cf.* Tuck, 1995) and also that the use of standards will ensure the latter's quality (Wolf, 1994b).

NZQA (1992:42) defines moderation of assessment as 'a process for ensuring the consistency of assessment with the required standard'. It will, as intended, ensure that each provider and assessor is capable of interpreting a standard fairly, consistently and validly (*cf.* NZQA, 1995b). Surely, moderation will be 'the real test' (Julian, interview, 1994). And it will help 'to ensure that credit gained by the learner is genuinely portable' (NZQA, 1995b:29). Maintaining comparable standards between different providers and between students is an issue recognised by NZQA as 'the key to the acceptance of the National Certificate as a high quality qualification' (*Framework Update*, 1992) and it provides, as stated by NZQA (1995c), 'a level of accountability and externality which is new to most teachers' (26).

Under the NQF, three moderation options exist. These are: a provider-based moderation system for which providers assume responsibility for establishing internal and external moderation systems but which is appraised by NZQA within the context of accreditation; a centrally created and directed national moderation system set up by a national standards body (NSB) or an industry training organisation (ITO) and, thirdly, a national moderation system of local networks set up by either an NSB or an ITO (NZQA, 1995b). In the second option, an individual NSB or ITO may establish a moderation system and involve bodies, such as, for example, NZQA or a national industry organisation. In option one, on the other hand, providers and workplaces design these systems locally, which may include local user groups representation (NZQA, 1992).

Thus, internal moderation is the generic term used by NZQA to refer to the internal arrangements all providers and workplaces are required to have in place in order to ensure that local assessments are in keeping with the acceptable national limits (*ibid*). The aim of moderation of assessment is to take a selective and representative sample and check the quality of the whole. In essence, moderation processes are not concerned with *what* is taught, nor *how* it is taught, but rather helps to ensure consistency of judgements (NZQA, 1996a).

The development process for the latter two types of moderation system is basically the same. NZQA requires that all the unit standards have a moderation action plan (MAP). Each advisory group has to agree to such a plan which is, in turn, checked by NZQA as to whether or not they meet the stipulated technical requirements and, also, if they are expected to have any undesirable resource implications for providers, candidates or the government (*ibid*, p.6). Figure 4.4 (see below) outlines the moderation action plan (MAP) process in an abridged version (27). Thus MAPs, when

implemented in the workplace and by institution-based providers, are critical measures put in place to ensure that the assessment results are valid and nationally consistent (NZQA, 1994b).

A moderation system for a unit standard in a particular area, will apply to every organisation intending to award credit for that particular unit standard, *i.e.* polytechnics, workplace assessors, schools and private training establishments (PTEs). NZQA (1996a:60) states that an overall moderation strategy is a general term referring to 'every activity that

FIGURE 4.4

MODERATION ACTION PLAN PROCESS		
ACTION	NZQA participation	RESULT
	FDO (1) initiates [negotiates with AO(3)]	AG's (2) critical path
AG Mtgs 1+2		
AG Mtg 3	AO gives briefing re Meeting forms	accred./moderation QualMngt.subcomm
Mtg(s)Quality Mngt.subcomm.	AO assistance for accreditation & moderation options and MAP internally critiqued and for endorsement to	draft MAP
AG Mtg 4	MAP endorsed, send to Quality Systems for [Unit standard + MAP =	Approval Registration]

Key: (1) denotes Framework Development Officer; (2) advisory group (see also Figure 4.1); (3) Assessment Officer.

contributes to consistency among providers'. A moderation of assessment strategy may include various techniques, ranging from external moderator visits, common assessment tasks, task banks, cluster meetings, item banks, consensus panels, and so on (NZQA, 1992; NZQA, 1996a; Sass and Wagner, 1992). The purpose of these activities, in the view of NZQA (1994d:3), is 'to calibrate assessor judgements and verify that the results of these judgements are accurate'.

In research undertaken for the Authority, Sass and Wagner (1992:49) have recommended that the consensus panel approach is the minimum moderation requirement for all unit standards in the Framework, and across all levels. Although moderation can occur at three different stages, *i.e.* before, during and after the assessment, they foresee that in a standards-based system much of the responsibility for maintaining standards will be shifted from post-assessment moderation activities to efforts that take place before the assessment commences (*ibid*, p.45). These efforts may include techniques such as the checking of assessment plans, schedules and tasks, and the production of workbooks, exemplars and checklists (NZQA, 1996a:60).

In a SBA system, the responsibility for moderation is largely devolved from the external examining bodies to the teaching profession and the workplace assessors, while the major role players, such as the professional bodies and the social partners, are involved in setting the standards which includes, of course, making decisions on moderation options (Sass and Wagner, 1992). On the subject of reliability and validity in relation to moderation by consensus, Sass and Wagner (*ibid*, p.71) conclude that, although reliability will decrease in this approach, (content) validity, on the other hand, will increase significantly. They make the important point that by linking the assessment with the objectives of instruction, one assures 'that the instructional content and process are the

goals of learning, and not the fight to outperform one's neighbour...' (*ibid*, p.72).

The NZQA approach to moderation has been criticised by Irwin, Elley and Hall (1995) who contend that it remains to be seen whether the moderation arrangements under the NQF will be able to cope with the flexibility of learning and teaching that is allowed in a standards-based system. But, on the other hand, they acknowledge that it is necessary to have an extensive moderation system in place that affords consistent and credible judgements in which the Framework end users can have confidence (*ibid*, p.24). Although they concede that moderation could contribute to teacher development, they also believe that the 'same benefits could be achieved with a combination of internal and external assessments and at a lower overall resource cost and with higher credibility' (*ibid*).

Tuck (1995), on the other hand, highlights the issue of variations in setting events and makes the valuable point that although range statements (in registered unit standards) lay out both the conditions and the nature of the assessment tasks, they nevertheless only compose a partial solution. The critical determinant of validity is the relationship between these statements and the instruction *per se*, and this is an apt statement. Moderation of assessment is likely to be a complex, time consuming and very expensive enterprise (*ibid*; Crombie, 1995). Presumably, the costs of it will be passed on to the user. The commodification of education and training therefore is expected to expand and encompass NQF-related assessment and moderation services.

However, given the fact that the government has decided to have a standards-based qualifications system established in New Zealand, it is inevitable that this must be supported by effective and reliable moderation systems. It should be mentioned, in this context, that the findings of research into moderation principles and processes by Sass and Wagner

(1992) showed that New Zealand research and experience was more intensive and informative than overseas work. Moreover, evidence of overseas research into the area of moderation of criterion-referenced or standards-based assessment was found to be limited.

Research by NZCER, combined with research undertaken by NZQA, has revealed that the key elements for successful moderation systems are:

- the provision of opportunities for the improvement of teacher assessment expertise;
- the use of exemplars of assessment techniques, assessment schedules and student work samples to enhance assessment expertise and signal standards;
- the provision of opportunities to adjust assessment standards before assessments took place, and
- the verification of the assessment through the sampling of the assessment of student work (NZQA, n.d./c:1).

It follows therefore that although, at a *general* level, the principles on which the national qualifications framework are based are relatively clear and laudable, the fact remains that New Zealand has embarked upon an experiment in education and training which is driven by a human capital approach, and which, to date, is unsufficiently supported by educational research.

QUALITY MANAGEMENT: NZQA'S SYSTEMIC APPROACH

NZQA (1994b; Male, 1994), as stated before, has adopted a nominalist definition of 'quality' in terms of the NQF by coining it 'fitness for purpose'. A more useful explanation of the notion of 'quality' in relation to the Framework has been provided by Barker (1993b:12), who expounds

that it is NZQA's approach to 'see quality within a systems approach, as a total process involving a number of steps'. He claims that 'quality is before the process' (*ibid*, p.10), in that the setting of purported clear standards is indispensable in achieving 'quality' in the NQF (28). In order to accomplish this, NZQA promotes the principle of partnership across the whole quality process, which means that all the major role players are required to play a part in this process but with differing responsibilities.

The emphasis therefore is on partnership, rather than central control, as maintained by NZQA (1993b), which is in keeping with the intentions of the education and training reforms. In its view, the establishment of effective quality management systems enables devolution of responsibilities to occur (*ibid*). Consequently, any provider offering courses leading to NQF qualifications must be able to manage the quality of the provision and assessment relating to those programmes, which includes a requirement of self-review (Male, 1994). Collett (1994:31) comments that in relation to the senior secondary school, these requirements have resulted in quality systems now taking a central place in curriculum development and assessment (29).

Thus a key feature of NZQA's approach to qualifications restructuring is its adoption of a collaborative approach to all the aspects relating to the Framework, including quality management and assurance. The following figure illustrates NZQA's approach to the quality management system for the NQF which comprises a system of interacting networks. Under this system, NZQA is responsible for the setting of the parameters and further supports the overall qualifications structure. The Qualifications Authority requires a national quality management system to be developed in each area of learning by one or more national standards groups. Moreover, each provider or workplace must have a

FIGURE 4.5

NETWORK OF INTERACTING QUALITY MANAGEMENT SYSTEMS IN THE NATIONAL QUALIFICATIONS FRAMEWORK:

Source: NZQA, 1996h:17

quality management system in place that covers the total organisation providers have the capacity to deliver the unit standards (30); while teachers and workplace assessors are required to establish a system in the context of both the organisation's and the user group's quality management systems.

In the Framework, there are a number of linked quality processes, or steps, which apply nationally to programmes leading to the assessment against unit standards. These are:

- the registration of unit standards and qualifications, and
- the moderation of assessment (both discussed above);
- the accreditation of training providers, which sets out to ensure that they have the capability to deliver programmes and assess against the unit standards;
- the accreditation of standards bodies to register assessors, to ensure that all assessors have technical expertise in the area they are assessing, have expertise in assessment and also have the personal qualities necessary to undertake the assessment;
- the registration of private and government training establishments, to ensure that basic educational and consumer safeguards are met;
- the audit of quality systems, to ensure the effective performance of overall systems for the management of quality (NZQA, 1993b; Barker, 1993b).

An additional quality management role carried out by NZQA is that it sets and maintains the technical criteria for the registration of unit standards. Furthermore, the Authority ensures that there is a consistency of the credit and level values, format, and nomenclature (NZQA, 1994b). Thus these systems, in the aggregate, constitute a systemic approach to quality assurance and management that underpins the NQF. It should be noted, however, that commensurate with the devolution principle, it is

both the intention and the practice of NZQA to delegate quality management roles to the level at which it takes effect (*ibid*, p.51: NZQA, 1993b:24).

Under the delegated authority of NZQA, the accrediting agent for the polytechnics is the Polytechnics Programmes Committee, while the New Zealand Vice-Chancellors' Committee is the designated agent under the Education Amendment Act to exercise accrediting powers for the universities (NZ Government, 1990:91). NZQA is anticipating that, eventually, it will devolve many of its responsibilities for quality management. And although the providers are currently required to take responsibility for quality assurance (NZQA, 1993a), the Authority has indicated that it is strongly in favour of providers reviewing and auditing their own systems as part of the quality audit requirements (Male, 1993:4).

NZQA's industry-derived approach to quality management has been criticised on a number of accounts (31). A main concern, some critics claim, is its product-focus because in doing so, it is believed, the learner's perspective is being neglected (Knox, 1994). Jones (1994b) points out that education is *not* a product, which is a perspective that is in conflict with the government's instrumentalist human capital approach to education and training. A product in the context of education and training is, according to NZQA (1993b:6), 'the new skills and knowledge acquired by the educated or trained person'. Jones (1994:150) argues, however, that the essence of education is transformative, *viz.* its main aim is to bring about changes in people (*cf.* Horsburgh and Robinson, 1994:121).

Horsburgh and Robinson (*ibid*, p.116) argue that NZQA sees quality education solely as a function of a systems approach, which ignores both the human factor and the professional teaching practice model. And they query whether there is evidence that supports the claim that a quality systems approach will result in an improvement in teaching practice (*ibid*,

p.118), while pondering whether 'the values inherent in the current industrial emphasis are those we wish to promote in education' (Hinchcliff, 1993, quoted in Horsburgh and Robinson, 1994:118). NZQA, naturally, does recognise the importance of the process of learning and in this context, applies the generic concept of 'quality' which, among other things, refers to the service of 'provision of an environment that enables the new skills and knowledge to be acquired'.

Hitchiner (1994) contends that an assumption appears to exist that there is a shared understanding from all of those involved in education and training as to what 'quality' exactly is. Unequivocally, it is an abstract and relational concept and therefore inevitably it will embody contestable meanings (*cf.* Jesson, 1995). Since 'quality [in education and training] is a public good' (Lundberg, 1994), it can be deduced plausibly that its end users are entitled to clear and consistent definitional guidance, since they will be required to make informed customer choices in the education and training market place.

Lastly, it should be mentioned though that 'quality' is not only a key theme in education in New Zealand, (Horsburgh and Robinson, 1994), for there are clear signs that it is emerging internationally as a *leitmotiv* in vocational education (Navaratnam, 1994; *cf.* Sellars, 1992).

EXAMINATIONS AND CERTIFICATION

The locus of national external written examinations in a seamless and outcomes-focussed education system is, as could be expected, a contentious issue in New Zealand (Irwin, 1994), which is yet unresolved at government policy level. The reasons behind, and the government's commitment to the introduction of the structural changes in learning and assessment in education and training, have been outlined in this work in some detail. But despite central government pressing for a paradigm shift,

it should be emphasised that the purpose and the value of external examinations have not only been challenged but also demoted by opponents for their ideological purposes.

In "Assessment for Better Learning", a Department of Education (1989:8) public discussion document, the view was expressed that national external examinations were seemingly not particularly suitable for maintaining standards. More recently, Strachan (1995:2) called attention to an existing 'strongly held belief in New Zealand that examinations set clear and rigorous standards'. However, he points out that the practice of scaled examinations for School Certificate has caused some considerable discontent in society, which in turn led the Minister of Education to instruct NZQA to cease scaling in 1992 (*cf.* NZQA, 1991d).

According to Barker (1995), opponents of the standards-based assessment approach have criticised the new direction because they are holding the view that the external written examination is the only reliable way in which assessments can be conducted. However, Michael Irwin (1994), a Business Roundtable policy analyst, conceded that although external examinations may be perceived by employers as more reliable, it is likely that moderated internal assessment can be effective in most school subjects. Elley (1995) also admits that examinations can test only a small proportion of a student's total knowledge and abilities. This comment should not be seen as specific to examinations since it is unlikely that other forms of assessment will achieve a great deal more coverage in professional and general education contexts.

The NZQA Board has made it clear, however, that it is strongly committed to the retention of competitive external examinations in secondary school (NZQA, 1996). This stance, despite the introduction of a standards-based assessment system, is a move which appears to be both incompatible and understandable at the same time, when considering the

history of and the existing support for external written examinations. After analysing the results of a survey on the history of secondary school examinations, Lee and Lee (1991:53) have concluded that external examinations always prevail over alternatives at the same level in terms of popularity. Tuck (1995), on the other hand, suggests the institution of a 'curriculum-valid external examination' at the point of graduation from secondary school - an examination which, he believes, could also function as an informal moderator for tertiary institutions.

As recommended by the NZQA Board to the Minister of Education in 1991, NQF qualifications are expected to become available to students in the senior secondary school (NZQA, 1991b). At present, two new secondary school qualifications are being proposed by NZQA, *i.e.* a National Certificate in Arts and Humanities and a National Certificate in Science and Technology, which will cover all 14 fields of the NQF. Once accepted, these qualifications will be available to all students at senior secondary level (*Learn*, 1996a). These new qualifications are in addition to specific-industry awards in the NQF (*ibid*, p.9). In the new qualifications structure, a revised University Bursary qualification will be assessed as a written examination (*ibid*).

These new National Certificates are partly modelled on the Tech Prep Associate Degree, employed in Canada and the United States of America, and have also been influenced by England's General National Vocational Qualifications (GNVQs) (*Learn*, 1996b). The reason for developing these new qualifications is, according to NZQA (*ibid*, p.10), to cater for 'the two-thirds of students who do not plan to study at university but who have traditionally had to study the same courses and work towards the same qualifications as if they were'. It should be noted that the aim of establishing new qualifications by itself is a laudable and perhaps necessary undertaking. However, given the probable retention of the

School Certificate, bursary examinations, scholarships as well as the introduction of the two National Certificates mentioned before, the latter ones will, as it seems, cater for the less academic (*cf.* Robson, 1994).

While this short and incomplete excursion into the issue of examinations under the new qualifications framework has only limited relevance to the central thesis of this work, it is important to indicate that the changes in every aspect of education and training are far-reaching and comprehensive indeed. In a purported seamless education, the 'harmonisation' between its constituent parts requires close observation, particularly in light of the governments's aims to make education and training more relevant to the world of work and to improve the qualification attainment levels.

Certification in the National Qualifications Framework consists of the recording of all the credits towards the new national qualifications on a national database maintained by NZQA. When credits for unit standards have been granted for successful performance, the result of an assessment will go on a person's Record of Learning. The reporting of workplace assessment of trainees to NZQA will be through the national office of an ITO on a monthly or a quarterly basis (ETSA, 1995). All learners will receive an annual printout of the document. And once the specified standards or credit totals have been attained, a National Certificate or National Diploma will be awarded.

A Record of Learning is thus a personalised and cumulative document attesting to an individual's achievement in NZQA registered NQF unit standards and qualifications. It will typically contain the unit standards completed, the level, credit value, and the date of completion. And in the case a qualification is completed, its full name and, again, the NQF level is listed on the award. The advantage of a Record of Learning is clear according to NZQA (n.d./d.), in that it will give providers and

employer 'an accurate and up-to-date summary of what they know and can do'. Since the Record of Learning is a cumulative document, this is likely to be an incentive for students to continue learning in relevant areas with a view to earning NQF unit standards and qualifications.

NOTES

- 1 Standards-based assessment in the NQF will be discussed below.
- 2 According to Sadler (1987:197), once the standards are defined the norms become irrelevant.
- 3 This comprehensive though incomplete listing of the purported benefits of national standards to NQF users will be referred to in the next chapter and further examined.
- 4 'Provider' is used here as a general term and includes all of the following places of learning: private training establishments, government training establishments, wananga, schools, colleges of education, polytechnics, and universities.
- 5 This however is a generalisation that may not apply to certain sectors of the economy at all or, alternatively, may eventuate much slower than forecast. This comment should not be taken as an argument that there is no need for planning, *etc.*, but is only included to emphasise that this is a topic of debate.
- 6 The meaning of these components will be clarified later on in this chapter. See also appendix 2 for an example of a unit standard.
- 7 See also chapters two and three.
- 8 This term has been coined by Michael Vaughan, a former framework development officer at NZQA, and appears to be a notion that is no longer being used by the Authority, neither has it been defined in any of its publications. It also needs to be clarified at this point that the history and the development of the standards setting processes and the employment of the different methodologies by NZQA over time have not been documented by NZQA to date (Richardson, interview, 1996).
- 9 I acknowledge that the use of Vaughan's statement in this context is perhaps rather anecdotal and reflects the opinion of a former NZQA employee expressed in 1994. The value of his comment, however, must also be viewed against the background of his providing a valuable insider's perspective. This topic will be elaborated upon in a later section.
- 10 Hall criticises here the conceptual basis of the notion of unit standard in general terms. In the next chapter his, and the views of other university commentators on NZQA's unit standard methodology and the NQF will be discussed.

11 In clarifying my position on this issue I wish to state that although NZQA's unit standards methodology is largely a reaction to the reality of a result-driven political environment, and for that reason understood and appreciated, too little academic reflection and debate have occurred on the fundamental elements of the NQF.

12 Gonczi (1993), an Australian academic, is advocating an 'integrated competency approach' to professional education and assessment, an approach which will be explained further on.

13 In my opinion, the notion of 'difficulty' has been used here rather unfortunately as it implies that the higher the level of learning on a framework of qualifications, the more difficult it is. This is, as Peddie (1994) has argued, not necessarily the case. He points out that one should not assume that there is always a definite link between 'difficulty' and 'framework levels' (*ibid*, p.8).

14 Previously, NZQA employed an approach in which sixteen descriptors were assigned to each NQF level. In the current system, 'purpose' is one of the four broad descriptor bands which include 'education and training' and 'certification' as being its specific descriptors, and evidently focuses on the labour market functions.

15 In a section of the next chapter, a discussion of the universities' view of this issue will be presented.

16 The terminology used here in a recent NZQA publication substantiates claims that New Zealand has adopted a *skills*-based approach to education (Jesson, 1995; Peters *et al.*, 1994).

17 'Essential' in the term 'essential skills', as used in the New Zealand Curriculum Framework, refers to the government's intention of all individuals developing the required skills at senior secondary school, whereas the term skill is used to signal its distinctness from knowledge or understanding. In contrast, generic skills apply to the NQF and are skills that traverse a range of situations or occupations (NZQA, 1993e:6). Generic skills, according to NZQA (*ibid*) are not necessarily regarded as essential to all New Zealanders but may be necessary for many occupations.

18 The reason for using this definition, which is borrowed from Mayer (Committee to Advise the AEC/MOVEET on employment-related Key Competencies for post-compulsory education and training, 1992) who calls these skills 'key competencies', is that it conveys in a non-complicated way the purpose and the scope of 'generic skills'.

19 Croft (1994:7) suggests that NZQA may have selected the term 'standards' instead of 'criterion' on purpose because the former has more political clout. He points out that the Ministry of Education's (1994c:49) document "Assessment Policy and Practice" also defines standards-based assessment as including criterion-referenced assessment.

20 The term achievement-based assessment was adopted in 1986 by the Committee of Inquiry into Curriculum, Assessment and Qualifications in

Forms 5 to 7, which was a deliberate attempt to break away from a completely normative system by introducing a more criterion-referenced approach (Sass and Wagner, 1992:13).

21 This issue will be further addressed in chapter five but see, for example, Hall, 1996b.

22 This information has been provided by NZQA to its staff in an internal memo which explained some of the key concepts used in 'Learning and Assessment' (1996a).

23 The Qualifications Authority now discourages the use of the term of recognition of prior learning (RPL) and rejects its inclusion as an *alternative* means of assessment in the NQF (NZQA, 1996b). And it promotes the use of the notion of 'assessing prior learning' (*ibid*, p.20) which, as stated by NZQA, is a more accurate term to use in a standards-based system. The Authority's policy position on this issue is that the assessment of evidence derived from prior learning is to be absorbed into the NQF standards-based assessment model (NZQA, 1994d).

24 Liz Bowen-Clewley of NZQA kindly provided photocopies of overhead transparencies which explained the principles and the practice of workplace assessment in the NQF which were drawn out of contracted research by Phillip Capper of WEB Research.

25 Due to a lack of available NZQA material and documents on this topic, I had to rely in my writing on material that was provided by Bowen-Clewley.

26 Although this information relates directly to SBA for the NQF in secondary school it equally applies to the other sectors covered by the framework.

27 This information was kindly provided by Ian Francis of NZQA, and is based on a MAP process designed by NZQA, dated 15 November 1994.

28 Barker (1993b) states that NZQA follows international practice in arguing that the setting of clear standards is at least 80% of quality. This claim has to be dismissed as unsubstantiated because no evidence of a research base for it has, and probably never can be provided.

29 The quality management systems of a provider are in part determined by the legislative requirements, NZQA, the Ministry of Education (being the funding agency) and also in part by the organisational culture of a provider (*cf.* NZQA, 1994b).

30 It should be noted that provider accreditation does *not* focus on the quality of the programmes offered by providers, but, conversely, on their organisational capacity to deliver programmes.

31 On the subject of the introduction of an industry model in education and training, NZQA (1993b:6) states that this is being used as a means to an end, and that 'it does not intend a rigid application that is not wholly appropriate to the process of learning'.

CHAPTER 5 EDUCATION AND TRAINING IN NEW ZEALAND: THE CHALLENGES AHEAD

NZQA AND UNIVERSITIES: OPPOSING WORLDS?

The tertiary education reforms, as described in chapter two, ushered in an era of significant change and challenge to the university sector. The Vice-Chancellors' Committee (NZVCC), in anticipation of a changing social and political environment and its possible effects on universities and university education, commissioned the writing of a report, which was undertaken by the New Zealand Universities Review Committee (1987).

Under its terms of reference, the Review Committee was requested to report to the NZVCC on: the development of the universities since the Parr Report (1); their future goals and development; matters which may impinge on the standing and effectiveness of the sector in either an international or domestic context; and to comment on ways the universities could increase their student intake among those from less privileged backgrounds, and also on possible shifts towards a more user-pays funding system of university education (*ibid*, pp.xii-xiii).

The main thrusts in the Review Committee's report were that an expanding enrolment and a 'qualitative enforcement' within the universities were considered to be essential as an investment in New Zealand's future. The report stressed that by international standards the

world is increasingly knowledge-based and economically competitive (*ibid*, p.xiv). However, according to the Review Committee, the functions and the nature of university education differ from, and are concerned with more than training (*sic*); this despite disciplines such as medicine, engineering, and law being vocationally oriented (*ibid*, p.6). A 'narrow vocationalism [that is] responding to immediate demands' (*ibid*, p.10), however, is rejected by the universities.

In contrast to the short-term priorities of industries and government, the universities perceive themselves, the Review Committee avows, as 'long-term institutions directed at producing graduates' (*ibid*). It is of some interest to note that on this topic NZQA (1994b:53) uses the following quotation in an internal document:

'...the apprenticeship model of university learning is no longer appropriate we want assurance about learning, not a certificate of time spent in civilising influences' (*Institute of Policy Studies Newsletter*, 1993),

which, it must be added, has been done for the purpose of questioning the universities' quality management systems (see below).

Universities, the Review Committee contended, are 'the hallmark of a society's culture, repositories of accumulated knowledge and wisdom' (1987:6), while also claiming that their focus on the development of the general powers of the mind through the study of subjects is legitimate, regardless of whether they may have an immediate obvious practical use (*ibid*). Universities, however, are being criticised of late for their lack of external accountability and responsiveness to government, industry, and society in general (OECD, 1987; NZQA, 1994b; *The Economist*, 1994a).

It is against this background of demands for improved external accountability directed to the universities in the 1980s, and the specific social and political setting in New Zealand at that time, that the pressing

for changes in this sector by the government must be understood. The intention of the reforms in education and training, as stated before, was, and still is, to create a single post-compulsory sector instead of competing territories (Barker, 1993b). The 1990 Education Amendment Act brought about considerable changes to the sector; *viz.* the University Grants Committee, their own funding body, was disestablished; the university degree monopoly was removed; and the universities lost the status of having their own Act of Parliament (NZ Government, 1990).

The New Zealand Vice-Chancellors' Committee (NZVCC) was founded under the Education Amendment Act as a Crown agency for the purpose of the 1989 Public Finance Act, and with the status of a body corporate (*ibid*, p.91). The former Act stipulated that tertiary institutions, *e.g.* the universities, establish councils, be headed by a chief executive and produce charters and statements of objectives. The Amendment Act, in addition, provided for the protection and definition of titles such as 'university', 'polytechnic' and 'colleges of education'. One of the functions assigned to the NZVCC in the Act was its application of the powers of NZQA in respect of course approval and accreditation criteria within their sector, with NZQA being assigned an audit role (*ibid*; NZVCC, 1995; see also sections 258-260 of the Education Amendment Act).

Logically, these changes have been perceived as a serious threat to the independence and the academic freedom of the university sector and therefore the issue of control is eminent (NZVCC, 1994; Codd, 1994; Laxon, 1995; Robson, 1996). In regards to the powers invested in NZQA in post-secondary education and training, and its mandate to develop a framework of national qualifications that includes degrees, it is not surprising that NZQA and NZVCC have been at loggerheads (*Learn*, 1994b). NZVCC (1994:3) has consistently held that 'national qualifications', as referred to in Section 253 (c) of the Education Amendment Act (NZ

Government, 1990:99), were never intended to include university degrees; a position which is in opposition to NZQA's stance on the issue.

In response to consistent pressures from the Authority to ensure 'quality' (Barker, 1994:4; Rawlings, 1995) in the provision of university education, NZVCC (1994), on behalf of the universities, established an Academic Audit Unit in 1994 which aims at improving the quality systems operating both within and across the universities (*cf.* NZVCC, 1995). It should be noted that this move has been triggered too by an international trend in improving quality systems in the higher education sector (van Vught, 1991; Neave and van Vught, 1991), and therefore cannot be solely attributed to legislative requirements and the pressures exerted by NZQA.

To date (2) the universities have strongly resisted an association with the NQF (Hall, 1996c), although an accommodation may be possible if certain requirements are met. In addition to reservations based on control and power, they have persistently rejected NZQA's unit standard methodology and its application to courses of study in higher education for pedagogical reasons (3). Hall, an ardent critic of extending the unit standard paradigm (but not standards-based education) to university education, identifies a number of cautions that need to be considered when implementing an outcomes approach in university education (Hall does not oppose universities linking with the Framework). He argues that outcomes and educational processes are inextricably linked and that learning outcomes generally need to be interpreted contextually (Hall, 1996c). Hall (*ibid*, p.3; 1995b) points out that the educational core of a unit standard is no more than a statement of learning objectives (4), mostly written in outcomes form which, in his view, only occasionally specifies a clear performance standard (Hall, 1994b; Hall, 1995a; *cf.* Elley, 1994). In addition, he argues that the introduction of the unit standards approach would limit the coherence and flexibility of university programmes and courses (Hall, 1995a; NZVCC, 1994). Thus, it is his fundamental belief that

course design and delivery must be integrated with the content and the level of the standards which students are expected to meet (Hall, 1995b:7; Hall, 1994a; Codd, 1994).

This is a philosophy and practice akin to university education which on the surface appears incongruent with the former Minister of Education's, Dr Lockwood Smith, idea that universities should identify and register standards on the NQF, not courses of study (interview, 1994). In his words:

if you [the universities] cannot identify the standards you are trying to achieve, how do you know when you achieved them? How on earth do you decide which students you are going to pass and which ones you are going to fail? (*ibid*).

Hall (1995a:11), however, asserts that Smith's view misrepresents the universities' perspective. The issue is not the desirability of identifying standards, but the clarity with which this can be done in reality and the practicability of registering all this information centrally on the NQF. He argues that there would be at least 9,000 unit standards added to the Framework and maybe as many as 20,000 if the universities followed the unit standard model and challenges the practicality of this approach as well as its pedagogical soundness (Hall, 1996a).

A view similar to Lockwood Smith's is presented by some of those who favour the competency standards framework in England. Such people tend to be critical of the academic programmes in the universities. According to Jessup (1991:113), 'There is little doubt that many students embark on degree courses with very little idea of what is to be offered and to what it might lead' (*cf.* Otter, 1995). Conversely, in Australia, despite a generally negative response from academics towards a competency-based approach in higher education (Bowden and Masters, 1992, quoted in Kingsland and Eng, 1993:193), the development of competency standards by the professions, it is expected, will have a substantial impact on the

courses and programmes offered in higher education in terms of their design and delivery (Hager, 1995). However, the Australian Federal Government has recognised that the universities have wider responsibilities than merely educating the students to meet professional standards (*ibid*, p.336).

In returning to the New Zealand context, Hall (1995b) asserts that NZQA shows a limited understanding of course design. This is based on Hall's view that outcomes need to be contextualised with learning processes (*i.e.* courses and other matters of training and education). This view is not a concern to many involved in vocational education. Interviews conducted for this research have indicated quite strongly that, in general terms, the unit standard concept and the outcomes-based methodology appear to have been largely accepted for the 'vocational' levels of the NQF (*i.e.* levels 1-4) by the role players concerned (5).

What is of fundamental relevance in this context is the question of whether the NZQA's standards approach is a suitable one for university education. In my view, this is certainly not the case. As mentioned in the previous chapter, the NQF is not particularly strong pedagogically, a point which has been expressed consistently and persuasively by Hall (1995a; 1996b), although it should be emphasised, again, that he employs a university perspective. A case study in standards-based assessment at the English Department of Otago University, undertaken over the 1991-1993 period, revealed that there are considerable problems with the concept and implementation of this model in a university setting. However, the author of the report, Barbara Purvis, concluded that there appears to be 'immense scope' in the application of this approach (NZQA, 1993f:15).

It is my belief, that given NZQA's maxim of 'fitness for purpose', the unit standards approach should not be imposed for political reasons on any education sector. Where a sector has irreconcilable difficulties with a

government-imposed, largely experimental approach to learning, 'fitness for purpose' ceases to be satisfied as a criterion. This argument appears to be shared by Wyatt Creech, the current Education Minister, who has stated that the qualifications framework has to be acceptable to all (*New Zealand Education Review*, 1996a:3). Similarly, the Tertiary Lead Group believes that such a system needs to be 'owned' by all participants (Ministerial Tertiary Lead Group, 1994:25).

Another important point is that it ought to be recognised that knowledge can be an end in itself (Codd, 1994). Legislation unequivocally recognises the role of the universities 'as a critic and conscience of society', and sees the development of intellectual independence as being their principal aim (NZ Government, 1990:33). Therefore, it seems to be improper to extend the instrumentalist notion that qualifications and knowledge are a (public) 'currency' (cf. Barker, 1993b:14; NZQA, 1993a) to all learning. Codd (1994) rejects NZQA's notion that 'customers demand quality' from the universities, as proclaimed by Barker (1994:4), because

[T]he educational standards appropriate to universities are not standards of consumer demand but standards for the assessment of context-dependent knowledge and professional action (Codd, 1994:9).

Paradoxically, perhaps, this should not be taken to mean that they should not aim to improve their internal quality management systems; a need which has already been recognised and accepted by the academic community (Hall, 1992; and see above). Hall (1996b) affirms that it is of the essence that students should know what is expected of them, regardless of whether the objectives for a course are written in the form of processes, outcomes, or a combination of both. This, it seems, is clearly something which the universities and NZQA can both agree to, notwithstanding the fact that each party prefers quite a different format to achieve this.

In 1993 the already tense relationship between NZQA and the universities deteriorated markedly when the NZVCC mounted a legal challenge to a decision by the Authority to grant Asia Pacific International (API), a private training establishment, use of the title 'university' (Robson, 1996) (7). In the end API withdrew its application for 'strategic' reasons. In a way this event can be seen as a turning point in the relationship between NZQA and the universities as an unproductive atmosphere of conflict between the two parties was no longer tolerated by the Minister of Education. This led Lockwood Smith to establish the Tertiary Lead Group (TLG), which was an 'advisory forum and not a policy making forum' (Ministerial Tertiary Lead Group, 1994:34).

The terms of reference for the Lead Group were as follows:

- (1) To resolve issues relating to the inclusion of degrees in the National Qualifications Framework;
- (2) To examine those functions of NZQA that could be delegated to an approved agent, for example:
 - recognition of standards-setting bodies;
 - registration of standards and qualifications;
 - accreditation;
- (3) To identify the parameters for standards-setting that would enable:
 - learners, employers and Government to identify the outcomes being purchased;
 - learners, providers and employers to determine the standard that has been reached;
 - a provider to recognise prior learning;
 - credit accumulation and transfer to occur on a systematic basis
 (*ibid*).

According to Codd (1994:3), it is quite obvious that the main aim for the Tertiary Lead Group was to ensure that the universities would 'be

brought into line' so that their degrees would become part of the NQF. He claims that both NZQA and the TLG had failed to produce a credible rationale for a *single* framework while also stating that the proposal carried dangerous implications for the control of knowledge. In respect to the latter point, he proclaims that its potential impact on the functions of the universities was undesirable and therefore should not go unchallenged (*ibid*, p.4).

In its report, the TLG unanimously recommended that all degrees be incorporated into a single, harmonised framework of qualifications (Ministerial Tertiary Lead Group, 1994:6) and that its implementation be given a high priority by the government (*ibid*, p.8). Significantly, the TLG made also the recommendation that only national degrees should be composed of unit standards, not provider degrees (*ibid*, p.6) (see below). This, unmistakably, can be seen as a victory for the universities (Codd, 1994), the more so since in 1995 NZQA's proposal (in a submission to the Cabinet Committee on Education, Training and Employment) to have all educational providers adopt the unit standard methodology for registering qualifications on the NQF (NZQA, 1995e, cited in Hall, 1996a:1-2) was not accepted.

The TLG's rationale for proposing a single harmonised framework of qualifications, which accommodates the full range of education and training spectrum and incorporates all degrees and post-graduate qualifications, is based on their belief that a country the size of New Zealand can no longer afford to maintain a number of different standards-setting systems which operate independently of one another (Ministerial Tertiary Lead Group, 1994). The Lead Group, on the other hand, believes that a single harmonised qualifications system is a necessary prerequisite for New Zealand to remain internationally competitive (*ibid*, p.3). Moreover, because of an increasing internationalisation of services it will be inevitable that it will be 'reliant on its reputation for quality and a

coherent, internationally accepted educational provision' (Robson, 1994:48).

As implied above, the TLG has recognised in its report the need for a broader approach to standards-setting which, in line with its proposal, is to be founded upon four categories of 'specifications' in relation to a 'harmonised framework', which cover: systemic policies; qualifications definitions; qualification specifications as well as unit standards (Ministerial Tertiary Lead Group, 1994:6). Systemic policies provide the specifications for effective quality managements systems at a national level. Qualification specifications are both general, in that they specify the generic features of a particular qualification, and specific, because they define the specific properties of a named degree, *e.g.* a Master of Arts degree. Qualification specifications, on the other hand, are domain specific and set the standards, for example, for an MA in History. Unit standards, qualification definitions and qualification specifications, as proposed, will all include learning outcomes (*ibid*, pp.17-8).

The TLG report recommends that there be two recognised processes for registering degrees on the NQF depending on the origin of the degree. Provider degrees (10), developed by providers and registered as whole qualifications on the NQF, would have to conform with the first three criteria listed above, whereas national degrees have to meet all of the four specifications. National degrees would comprise of unit standards and be developed by national standards-setting bodies (*ibid*, p.19). However, it is expected, according to David Lythe of NZQA, that only a few national degrees will be developed over the next three to four years (interview, 1996).

A further key recommendation in the TLG's report, was the setting up of a Tertiary Qualifications Co-ordinating Committee (TQCC) under legislation with delegated authority from the Board of NZQA for the registration of degrees and post-graduate qualifications, whether provider

or national, on the NQF (Ministerial Tertiary Lead Group, 1994:7). This idea, however, has been abolished (see below) since the Minister of Education, in line with the views held by the universities (Hall, interview, 1996), perceived this as an extra, unnecessary layer to the existing decision-making structure in education (Bennett, personal communication, 1996) (11).

The proposed membership of TQCC reflects the view of the Lead Group that all the major role players, including those with educational expertise, should be represented on the committee. This clearly seems to be an improvement on the current NZQA Board membership structure as educational providers are under-represented (12). On the basis of this proposed increased delegation from the tertiary education sector, sufficient and necessary expertise in the area of course design and approval is expected to be available in order to deal with pedagogical considerations in tertiary education in relation to degrees associated with the NQF.

Subsequently, the TLG recommendation to set up a Tertiary Action Group (TAG) has quickly implemented. The TAG, an advisory group to the NZQA Board on the implementation of a single harmonised qualifications framework and degree and tertiary issues, comprised fifteen members and included a strong representation of educational providers. It replaced NZQA's sector-focussed joint action groups (Ministerial Tertiary Lead Group, 1994). In its report to the Board of NZQA, TAG (1996) proposes the establishment of a Degree Co-ordinating and Advisory Body (DCAG) which supersedes the recommended TQCC (see above) and is expected to provide an independent perspective to the NZQA Board on degrees and postgraduate qualifications in a harmonised framework (*ibid*, p.61).

The Lead Group report embodied some further noteworthy proposals. It recommended a rationalisation of standards-setting bodies so as to ensure the long-term viability of a harmonised framework and called

for a review of the Industry Training Act, as it relates to standards-setting, in order to ensure that the differentiation between industry training organisations and standard-setting bodies is clear (*ibid*, p.7). In the case of provider degrees, decisions relating to credit transfer and the recognition of prior learning (RPL) will be, it is proposed, the prerogative of the providers (*ibid*, p.6) but applied under certain guidelines. The TLG report emphasises that the quality and coherence of tertiary education should not be undermined by credit transfer and RPL operations (*ibid*, p.20).

The latter recommendation is of considerable importance to the universities since they are of the opinion that RPL, for pedagogical considerations, needs to be assessed against more than unit standards only (NZVCC, 1994). In a similar vein, Hall (1996a:18) asserts that the recognition of prior achievement of students must not dictate the development of educational programmes. Educational content and purpose, in his view, must come first, while the consideration of credit transfer and RPL should build on this base (Hall, 1995a).

RPL, as stated by Harré Hindmarch (1992), is already considered part of the educational practice of the New Zealand universities but, at this point, not to the extent of awarding credit. According to her and in general terms, RPL is basically incompatible with the particular character of certain disciplines because of their emphasis on the learning process and the notion of excellence rather than the outcomes and vocation-specific competence (Harré Hindmarch, 1992:75; NZVCC, 1994).

On the other hand, benefits can be accrued from RPL in higher education to students, universities and employers. A major benefit to students is that it reduces duplication of learning. Some of the advantages it may have to universities is that it decreases the need for introductory courses; it increases graduation rates; and it may retain control over quality by formally assessing an applicant's prior learning (Cohen *et al.*, 1993). Overall, an international trend can be noted in the development of

RPL policies and procedures in tertiary institutions which is reflective of the need to accord greater priority to the concept of lifelong learning (Harré Hindmarch *et al.*, 1992).

Generally speaking, feedback from the university sector on the TLG report has been positive. Les Holborow, Victoria University's Vice-Chancellor and Tertiary Lead Group member, has expressed the view that the report effectively addressed the educational concerns the university sector have had with the NQF, although some implementation concerns have still to be addressed, such as the compliance costs involved in the accommodation of existing degrees on the NQF (*QA News*, 1994b) and the costs of implementing quality assurance (*Learn*, 1995a; *Learn*, 1994b). In essence, the Lead Group's principal recommendation is to 'harmonise' the NZQA Framework and the university qualifications system, and not to bring the universities 'into' the unit standard NQF.

The New Zealand University Students Association (1994) believe this idea will ensure that students receive a quality education as institutions must clearly document what it is that their qualifications provide. Moreover, a single system allows students to move between courses and institutions (*QA News*, 1994b). NZQA, on the other hand, welcomed the proposal since it removed the last hurdle to the potential realisation of an education system with no barriers between its sectors. The worlds of the universities and NZQA appear to be less in opposition due to the work undertaken by the TLG and TAG. But although progress seems to have been made, uncertainties and sensitivities remain in existence, not in the least because of the complexities involved in developing a harmonised qualifications system (TAG, 1996).

In the view of Sir Neil Waters, the current Chairman of the NZQA Board (and a past Chairman of the NZVCC), the TAG report is expected to provide a valuable basis for further discussions between NZQA and NZVCC. In this report, it was noted that an earlier proposal by the Action

Group of adding two further levels (9 and 10) to the NQF is no longer deemed desirable (*ibid*, p.3; TAG, 1995). The universities' reaction to this move has been mixed but the NZVCC response has been to endorse the concept of an open-ended level 8 (Hall, interview, 1996). If the TAG recommendations relating to provider degrees are endorsed by the Board of NZQA, such degrees will be required to meet certain 'quality' requirements; *viz.* have level and credit specificity; provide quality assurance, and clearly specified outcomes (TAG, 1996). Hall (1996b:3-5) points out that the distinction drawn by the TAG between an 'objective' (as used in universities) and a 'learning outcome' (as used by NZQA) is somewhat problematic. TAG (1996:10) depicts an 'objective' as the 'planned journey' whereas a 'learning outcome' is an

... activity or set of activities that a person has been assessed as able to carry out against stated assessment criteria. The focus is on what a person is able to do as a result of undertaking the programme.

Hall (1996b:3-4) states that an 'objective', as employed at Victoria University (13), is a 'succinct statement of intent which identifies either an outcome to be achieved and/or a process to be undertaken or experienced'. Thus an objective can take the form of an intended outcome, a process, or a blend of each. Hall (interview, 1996) points out that many of the example outcomes contained in the TAG report are in fact a blend of outcome and process. In many respects, the distinction made by Hall provides a clearer conception of outcomes, processes and objectives than that given in the TAG report. He argues that the universities should not accept TAG's distinction between an objective and an outcome (*ibid*, p.5).

In conclusion of this section, it may be informative to note that he conceives of an effective NQF as one which is based on a sound statement of principles, an acceptance of key definitions, *e.g.* for research, bachelor's

degree, and the absolute minimum of centralised rules and centralised recording of information (*ibid*, pp.2-3).

IMPLEMENTATION OF THE REFORMS: SOME OBSERVATIONS

The purpose of this section is to provide an analysis of some of the implementation issues relating to the Skill New Zealand initiative. It sets out to report on progress made in the qualifications and training areas. In doing so, it is important to stress that because of a lack of data and research into the implementation of these reform areas, the information presented here is incomplete and it follows that some of the evidence presented is anecdotal. None the less, it is relevant to offset some of the results that have been achieved to date against targets set by the government (*cf.* ETSA, 1991a).

In its document "Education for the 21st Century", which was designed to give direction to the nation's education and training systems, the Ministry of Education announced a set of desirable national outcomes and attainment targets. One of the outcomes it identified was for a flexible and accessible qualifications system which meets the needs of New Zealand, is understood by students and the general public, and which is also recognised internationally. Hence, qualifications are to provide the recognition of the attainment of skills for an effective participation in a changing technological and economic environment; and a learning culture in which lifelong education and training are valued and recognised by relevant qualifications (Ministry of Education, 1994a:30).

The principal aim identified in the post-school area by the government is achieving a highly skilled workforce at both enterprise and industry level, which is to enhance New Zealand's international competitiveness. Three desirable outcomes have been identified in this respect: the training and qualifications systems have to be highly responsive to the needs of enterprise and industry; the education system is

to enable individuals to make informed choices about education, training and employment; and the expansion of systematic training in industry, and the development of a training culture in New Zealand (*ibid*, p.32).

To achieve these outcomes, the following targets have been established:

- Industry Training Organisations (ITOs) will be recognised for specified industries so that by

- 1995 industries covered by an ITO will employ 48% of the employed workforce;

- 1998 industries covered by an ITO will employ 70% of the employed workforce;

- 2001 industries covered by an ITO will employ 80% of the employed workforce (14);

- Standards-setting will in

- 1995 cover 85% of industries classified under the New Zealand Standard Industrial Classification;

- 1998 cover 92% of industries classified under the New Zealand Standard Industrial Classification;

- 2001 cover 98% of industries classified under the New Zealand Standard Industrial Classification;

- National Certificates and National Diplomas (where appropriate) will have been registered in

- 1995 by 20% of standards-setting bodies;

- 1998 by 60% of standards-setting bodies;

- 2001 by all standards-setting bodies.

- Assessment in the workplace will be available by

- 1995 in 5% of the industries covered by an ITO;

- 1998 in 20% of the industries covered by an ITO;

- 2001 in 60% of the industries covered by an ITO (*ibid*, p.33).

It is interesting to note that in the 1993 "Education for the 21st Century" discussion document targets have been set for the attainment of qualifications at NQF level 4, or above, through training in industry for the 'current adult population', *i.e.* 13% by 1995; 17% by 1998; and 20% by 2001 (Ministry of Education, 1993c:33). In the 1994 document, on the other hand, these national attainment targets have been removed all together, indicating the difficulties in implementing the qualifications reform. It should also be noted that whereas the 1993 discussion document specifically refers to private training establishments as the providers of 'second chance' education and training, no mention of this was made in the 1994 document (Ministry of Education, 1994a).

At the time of writing (August 1996), the Authority has existed for more than six years during which it has designed and developed policies in relation to the NQF and commenced implementing those policies. Since the launch of the Framework in November 1991, some significant milestones had been reached by NZQA in the first half of 1993. For example, the first National Certificate units of the framework were officially launched by the Minister of Education in early February 1993, totalling 118 units in hairdressing, office systems, the motor trade, computing, and in the primary industry areas; while a total of 6000 units were in the process of being developed (QA News, 1993a).

Additionally, the first National Certificate provider was accredited to teach units standards under the NQF (QA News, 1993b) while, in the same year, the Board of NZQA delegated its power, as intended in the "Learning for Life" reforms - and legislated in the 1990 Education Amendment Act - to the New Zealand Polytechnic Programmes Committee the responsibility for course approval and accreditation in polytechnics (QA News, 1993a). The first National Certificate was registered on the NQF in 1993, while the first one was awarded in 1994.

Within the first full year of its existence, NZQA, like the other central education agencies, was subjected to an external review of its operations by the incoming National Government (The Officials Committee set up to Review the NZQA, 1991). The Review Committee found that NZQA appeared to be 'a cost effective and efficient organisation' (*ibid*, p.1), while also noting that in the context of the labour market, it was beneficial to have a clearly defined national qualifications framework which provides a useful tool in recruitment, labour market mobility, and skills formation (*ibid*, p.4). The committee's report positively appraised the appropriateness of the statutory functions assigned to the agency and its capacity to fulfil them efficiently.

NZQA's (1991c:9) 1990-91 Annual Report stated that if 'quality is a measure of how many participate and succeed in the education and training system post-16, then there is room for much improvement'. Bearing in mind this implicit aim for betterment, the following data can only be seen as a tentative and inconclusive indication of some of the implementation results of the NQF to date. But first a significant improvement in the secondary school area needs mentioning, in that the percentage of those leaving school with no formal qualification has decreased from 33% in 1984 (see chapter three) to 18.1% in 1995, which constitutes, in turn, an increase of 1.8 percentage points on the previous year (Ministry of Education, 1996:1).

Data presented in table 5.1 below clearly indicate that since the inception of the agency the number of traditional national trade and technical qualifications, issued by NZQA, has decreased markedly and will continue to do so given the ongoing implementation of the NQF. This table shows that a very low number of technicians certificates have been issued over the last three to four years which, consequently, is to be taken to mean that their relevance has been reduced strongly because of both technological advancement and demands for higher levels of education.

Although not included in the table below, the number of New Zealand Certificates issued in 1988 by the AAVA amounted to 455 which is similar to its 1993 level (Statistics New Zealand, 1996).

TABLE 5.1

ACTUAL NUMBERS OF NEW ZEALAND CERTIFICATES, TECHNICIANS-, ADVANCED TRADE-, AND TRADE CERTIFICATES ISSUED IN THE PERIOD 1990-94 BY NZQA AND ESTIMATED TO BE ISSUED FROM 1996 TO 1998

Year ended June	TEC	NZC	ATC	Trade (1)
1990	75	561	1042	2783
1991	104	1372	633	2507
1992	52	660	608	2358
1993	28	472	417	1974
1994	21	401	375	1654
1995	14	456	391	1681
1996		455		1588
1997		300		1300
1998		200		1000

Source: 1990-93 figures derived from Statistics New Zealand, 1996:207; 1994-98 were kindly provided by Brian Andersen and Linda Forsyth of NZQA.

Key: (1) TEC, NZC, ATC, and Trade denote Technicians-, New Zealand-, Advanced Trade-, and Trade Certificates respectively.

Because of the fact that currently two qualifications systems are operational, the conventional education system and an emerging NQF and seamless system, the figures which have been provided do not, and cannot do justice to results already achieved by learners under the Framework. As shown in table 5.2 below, some 92,000 learners are currently (as at 1 September 1996) registered on NZQA's Record of Learning and have amassed over 1.2 million credits in total, while 1,779 new Framework qualifications have been awarded. Although the award of credit for new

NQF qualifications is obviously not a 'reporting device' on educational attainment levels, nonetheless the credit total may be seen as simply being an undifferentiated quantitative indicator of the award of standards-based credits.

TABLE 5.2

NATIONAL QUALIFICATIONS FRAMEWORK STATISTICS AS AT		
	1 June 1995	AND 1 July 1996/ 1 Sept.1996 (*)
Total learners hooked-on to the Record of Learning (RoL)	23,943	92,303 *
Credits on RoL		1,238,205 *
Maori learners hooked-on to RoL	8,960 (1)	19,313 *
Credits on RoL		192,575
PI learners hooked on to RoL(2)		6,738 *
National Qualifications awarded		1,779 *
Registered unit standards	3,375 (3)	7,092 *
Registered NQF qualifications	55	187 *
ITOs (recognised by ETSA)	46	52 *
National standards bodies		1
Standards-setters (4)	219	225
Registered training establishm.(5)	818	807
Providers NQF accredited	223	629
Maori providers accredited		98
Schools accredited		310
ITOs/NSBs accredited to register assessors	11	22 (6)

Source: *Skill NZ Newsletter*, 1996b, and ETSA, 1996b for the 1995 data in the first column; NZQA (1996c) for the 1 July 1996 data, and NZQA (1996g) for the 1 September 1996 data.

Key: (1) as at December 1995; (2) Pacific Island learners registered on the Framework as at 1 May 1996 (ETSA, 1996b); (3) denotes unit standards for sale as at 1 June 1995; (4) whakaruruhau, advisory groups and forums; (5) private and government; (6) as at 31 March 1996, 15 of the 20 ITOs accredited to register assessors have a total of 2,878 registered assessors (ETSA, 1996b).

This overview of developments in the implementation of the Skill New Zealand initiative as of 1 June 1995 and 1 September 1996 shows that some considerable progress has been made within a period of 13 months in quite a number of its key areas. For example, a substantial increase has been achieved in the registration of both qualifications and unit standards on to the Framework. The total number of learners 'hooked-on' to the NQF has gone up by some 50,000, while the number of NQF accredited providers has reached 629 at 1 July 1996, which is an increase of more than 400 to the number since the start of June 1995.

It is expected that ultimately a total of some 9,000 unit standards will be registered on the NQF (15). Given this prediction, two-thirds of the unit standards have now been produced by the Authority. Moreover, NZQA expects that 250 NQF qualifications will be registered on the Framework by the end of 1996 which, it is envisaged, may amount to 500 or 600 new qualifications in total (16).

Table 5.3 (see below) gives information, as of February 1996, on the developmental status of NQF qualifications per Framework field. These figures show that, at that time, 81 National Certificates and one single National Diploma have been registered by NZQA on the Framework. However, quite a number of National Certificates and Diplomas are currently under development. It is expected that the majority of the National Certificates will be publicly available later in 1996, or in 1997 (cf. NZQA, 1996b). By 2001, the government expects that 80% of the employment activity is covered by new qualifications (*The Employer*, 1995).

An analysis of the table below shows that trade and/or advanced trade certificates were available in the fields in *italics* prior to the introduction of the NQF qualifications. The majority of the traditional trade awards can be found in the NQF fields of engineering and technology, planning and construction, and manufacturing. In the service sector where only a few trade qualifications were available historically, *e.g.*

hairdressing and in the hospitality area, a significant number of National Certificates have been registered (13) or are currently being developed (40), or planned (16), which amount to a total of 69 NQF National Certificates.

As time-serving is no longer an explicit, key feature of vocational qualifications, it is of interest to see what the credit ratings are, and hence

TABLE 5.3

NQF QUALIFICATIONS: REGISTERED, UNDER DEVELOPMENT AND/OR PLANNED PER FIELD AS AT FEBRUARY 1996 (1)			
Field (2)	Registered NC/ND (3)	Developed NC/ND	Planned NC/ND
<i>Agr/Hort/Forest/Fis(4)</i>	11/0	38/10	17/3
Arts and Crafts	0/0	25/2	2/1
Bus./Fin.Services	1/0	4/4	4/7
Comput./Info Technol.	2/0	2/2	0/0
Core Skills	0/0	1/0	0/0
Education	0/0	3/0	3/5
<i>Engineering/Technology</i>	29/0	33/5	2/6
<i>Manufacturing</i>	22/0	55/4	4/7
Health	0/0	15/4	0/0
Humanities/Soc.Sciences	0/0	1/0	6/4
Maori	0/0	2/1	3/3
<i>Planning/Construction</i>	3/0	11/0	10/7
Science	0/0	1/1	1/1
<i>Service Sector</i>	13/1	40/9	16/7
Total	81/1	231/42	68/51

Source: NZQA, 1996b.

Key: (1) The data presented in this table have been compiled from a publication issued by NZQA in February 1996 and provides a snapshot of the development of NQF qualifications only; (2) Field refers to a broad NQF classification of groupings; (3) NC stands for National Certificate, ND for National Diploma; (4) Agriculture, horticulture, forestry and fishery.

the average learner time for a number of registered NQF national certificates. The level 4 National Certificate in Motor Industry (Automotive Engineering) has a credit total of 146 (minimum) and 148 (maximum), which amounts to approximately 14 months of average full-time learning (17). This national certificate can only be gained by those employed in the industry and is being regarded as a means of recognising the skills and knowledge which apprentices and tradespersons have achieved (NZQA, 1996d:8).

However, it follows on from the National Certificate in Motor Industry (Entry to Automotive Trades), a level 2 pre-employment qualification carrying a credit rating of 92 (or 7.5 months of average full-time learning). It is recommended that this qualification be obtained first, since it contains pre-requisites for the level 4 national certificate (*ibid*). The average learning time thus amounts to some 21.5 months of on- and off-the-job training. It should be realised that this is an indication only, because individual learners may take longer or shorter to complete all of the requirements for the award of the national certificate. And importantly, trainees enter a training agreement with an employer, which means that the training period is stipulated, within which the required standards are expected to be achieved. In the view of Wickens (of the Motor ITO), as soon as you complete your national certificate you are a tradesperson (Hotere, 1996b).

The two national certificates effectively replaced the Trade Certificate in Automotive Engineering. For the latter course a student was normally required to complete a four-year apprenticeship. Part of the requirements was that one had to pass a second assessment, carried out internally by the teaching institution for the practical and the theory parts, followed by a provider-based practical test and a written examination run by NZQA for the trade certificate (NZQA, 1989). It is uncertain whether a

National Diploma in Automotive Engineering will be developed (NZQA, 1996b; cf. Wickens, interview, 1994).

The National Certificate in Hairdressing, the second example, is also a level 4 standards-based qualification, but carries a credit total of 309 compulsory credits plus two optional credits, which translates to approximately 2.5 years of, again, average full-time learning. Nearly half of its credits are placed at level 3, whereas 35 credits are at NQF level 5. Those awarded with this credential are deemed to have demonstrated competence in the skills and knowledge required by industry.

A National Diploma in Hairdressing Management is being developed at present (NZQA, 1996b). It is also believed that the hairdressing industry has been contemplating the idea of developing a degree programme for its trade (18). Some might argue that this would constitute a case of qualification inflation, without also sufficient consideration to the pedagogical implications.

The National Certificate in Hairdressing, registered on the NQF, substitutes the Trade Certificate in Hairdressing, which contained the requirement of a four-year time-serving apprenticeship. In addition, candidates were also required to pass the First Qualifying, Second Qualifying, and Trade Certificate examinations (NZTCB, 1990).

An analysis of the credit ratings of Framework national certificates registered by NZQA and listed in its 3 May 1996 unit standards catalogue, discloses that notable differences exist in the ratings. The highest credit rating for a level 4 national certificate (NC), for example, aggregates a total of 339 credits (NC in Refrigeration and Air Conditioning), whereas the lowest rating comes to 42 for the NC in Cranes (Advanced Mobile Crane Operation), which incorporates 17 credits at level 5. According to qualification information, the holder of the latter qualification is purported to be able to 'undertake a wide range of complex operational work at the most advanced level' (NZQA, 1996d).

With regard to level 3 national certificates, a similar discrepancy can be noted: the highest rating being 157 for the NC in Carpentry (version 2) which is the minimum credit total for the residential construction option. In terms of rating this qualification carries credits in advance of the majority of the level 4 certificates. In contrast to this, the level 3 NC in Dairy Manufacturing (version 2) has only 40 credits, or requires on average four months of full-time learning.

Some of the level 2 national certificates (e.g. level 2 NC in Agriculture (Introductory Farming Skills) have credit ratings higher than level 4 awards (e.g. a number of level 4 national certificates in printing). On the other hand, there are some level 5 national certificates in industrial machine knitting registered on the NQF for which the preferred entry credential is a level 4 NC in the same field. Thus progress from a level 4 NQF qualification to a national diploma may not be assumed in all the qualification areas of the NQF.

The above examples provide some evidence of what seem to be anomalies in the different credit ratings for awards registered on the NQF. However, regardless of whether there is any validity in these criticisms, a more useful point to make in this context is, as noted earlier in this work, that the overriding principle with regard to the Skill New Zealand initiative is its fitness for purpose. As stated by Grace (interview, 1996), the different credit ratings across industries for the different qualifications on the NQF may not be necessarily an issue to a particular industry or to an employer, although she seems to agree that there is some criticism from ITOs on the topic of the value of credits (*ibid*).

In a similar fashion, progress made under the training and qualifications reforms is to be evaluated against the targets set by government. Statistical data compiled by ETSA reveal that the volume of industry trainees, comprising apprentices/industry trainees and primary industry cadets, is showing a significant increase (see table 5.4 below) for

the period 1994 to 1997, after having reached a figure of just under 15,000 industry trainees in June 1993 (*Skill New Zealand Newsletter*, 1996a). The Agency has estimated that the total number of trainees will reach 30,350 by December 1996, which is the highest volume for 24 years.

From 1 July 1994 until October 1995, almost 6,100 new industry training agreements have been signed (Lythe, 1995). In the same period sharp increases in apprenticeship numbers have been noticeable (see table 5.4 below). For example, in the engineering industry this amounted to an annual rise for 1994-95 of over 50% in apprenticeship uptake (*ibid*). Further increases in these numbers are expected as the government is aiming to create 13,000 new places for apprentices and trainees by 1998 (*The Employer*, 1995).

In terms of the target for ITO coverage of industry, as set in "Education for the 21st Century" at 70% by 1998 (see below), this percentage has been achieved now. It is estimated by Grace (interview, 1996) that some 74% of the workforce is covered by ITOs (*Skill New Zealand Newsletter*, 1996a). She also points out that, when including the work undertaken by the industry advisory groups and the national standards bodies, this would amount to a workforce coverage of approximately 90% (ETSA, 1996b).

One of the aims of the industry training strategy and the NQF is to improve the volume of systematic training as well as to expand it into those areas of the economy which have not had coverage by structured training and nationally recognised qualifications. There are clear signs that this is occurring successfully (see table 5.3 above), since NQF qualifications are progressively being registered, developed and planned. In the bitumen industry, for example, there has been a lack of structured training leading to recognition of skills in the form of qualifications. The industry prepares now for five national certificates (ETSA and NZQA, 1996c).

According to the latest Skill New Zealand 'stocktake' report (June 1996), 31 of the current 52 ITOs had little or no formal training prior to the On the basis of this data, it would be reasonable to state tentatively that, at least in quantitative terms, Skill New Zealand appears to have made considerable progress.

According to the Chairman of the ETSA Board, John McCarthy, the 1992 Industry Training Act provided a much-needed boost to apprenticeship-style training. The rise in training volume suggests, in his thinking, that 'more and more employers are recognising that training is an

TABLE 5.4

TOTAL INDUSTRY TRAINEES 1990-1996			
YEAR ENDING	TOTAL	YEAR ENDING	TOTAL
June 1990	22,500	June 1994	5,804
June 1991	20,220	June 1995	8,344
June 1992	16,711	December 1995	19,740
June 1993	14,904	December 1996	30,350 (estimated)

Source: *Skill New Zealand Newsletter*, 1996a; ETSA, 1996a.

investment, not a cost' (interview, 1994; cf. *Learn*, 1995b). This trend, however, is also being promoted by the expansion of economic activity and the shortage of skilled people that resulted (McCarthy, personal communication, 1996).

Against this background, it is not unimportant to note that three National Certificates in Manufacturing Process have been registered on the Framework (Level 1, 2 and 3, respectively), giving access to training and qualifications to the many thousands of semi-skilled workers in New Zealand (ETSA and NZQA, 1996b); thus providing potential pathways to those wishing to have their skills and work-related experience recognised.

A survey of stakeholders conducted for ETSA (1996b:1) has demonstrated that there is a reasonably positive and even a strong level of support for the overall principles of the Skill New Zealand Strategy by those who know of it (*cf. The Employer, 1995*). Moreover, the data suggest that trainees are satisfied with the training they receive under the new training arrangements, according to the Agency (ETSA, 1996b) (19). And evidently, the same data is believed to disclose that 'student approval levels are high', and that there is 'Maori acceptance' (*ibid*).

With regard to the implementation of the Framework in the secondary school, research undertaken by NZQA claims to have established that the majority of students in schools participating in trialling the unit standard based courses approve of the new assessment method (ETSA and NZQA, 1996a) (20). It also elicited that many of the students found that the unit standards were too demanding, while the number of tests throughout the year was considered excessive (*ibid*, p.5). On the other hand, over half of the respondents were positive about the opportunity (inherent in this approach) to be reassessed after failing the first time, as well as about the fact that there were a smaller number of examinations throughout the year rather than one large exam at the end (*ibid*).

Some information is available on public perception and attitudes to the Skill New Zealand strategy. The Heylen Research Centre (1992), for example, conducted research for NZQA into the public perception of qualifications and the role of the Authority. Its research findings bring to light some interesting points (21). A high percentage (93%) of the respondents agreed that having qualifications is important; and almost two-thirds of the sample preferred set standards as the reference point for assessment, while one-third was in favour of norm-referencing (*ibid*, p.7). No less encouraging for NZQA, was that this research established in early 1992 that not only half of the sample had heard of the Authority but that the activities most commonly ascribed to NZQA were both their running

of examinations as well as their setting of standards (*ibid*, p.8) (22). But in spite of the fact that the majority of the respondents agreed with the notion that knowledge and skills gained informally should be able to be recognised in a qualification, 40% did not agree with this view. It would be interesting, and also not unimportant, to see whether and to what extent changes have occurred in this respect in more recent times.

MRL Research Group (1996) was commissioned by NZQA to investigate the public awareness of, and attitudes toward Skill New Zealand and the NQF; in particular with a view to assess the effectiveness of a television campaign about the national certificate, targeting secondary school students (23). Although it was found that a significant decrease in the awareness of Skill New Zealand had occurred (28% in May 1996, compared with 41% in November 1995), this reflected - as MRL concluded - the lack of a recent publicity campaign (MRL Research Group, 1996:7,11). MRL's research indicates that more than half of the respondents (52%) feel positive or very positive toward Skill New Zealand, whereas 33% feel 'neutral' (*ibid*, p.7).

The awareness of the NQF, in comparison with an earlier MRL survey, has stabilised with only four in 10 respondents being aware of it (*ibid*, p.8). Moreover, as extrapolated from the survey, more than half of all New Zealanders are unaware of the Framework, of which two-thirds are Maori. Four in ten Maori, MRL discovered, say that they know nothing about it. Thus the awareness of the Framework is particularly low amongst Maori, but also among the unemployed; of the latter only 36% have heard of the NQF (*ibid*, p.19). In light of these findings, it should be and *is* of some considerable concern to NZQA that a large percentage of the population is still unfamiliar with the NQF (*cf.* Myers, 1996:62-3).

David Hood (interview, 1996), for example, points out that although, in his view, the percentage of people with an awareness of the Framework is growing, a part of the same reality is that 'NZQA has not

really been funded for a real communications strategy'. Interviews with representatives of all of the major role players, which have been conducted at the various stages of this research (see appendix 1), show a general concern with the issue at hand. At this juncture, it needs mentioning that a very high degree of consensus exist among those role players about the principles which underpin the Framework. Generally they approve of the intention and direction of the qualifications and training reforms (24).

The implementation of the NQF and the whole Skill New Zealand strategy is, as one could expect, fraught with some major difficulties. In secondary education, it is arguably the biggest change since compulsory education was introduced (*Learn*, 1994a). The NQF constitutes a shift in emphasis from 'an age-related movement through the school to needs-related movement' (NZQA, 1994e). This, in turn, requires the review of the current school structures and a 'redefinition' of the teaching profession itself.

In spite of many teachers philosophically agreeing with the thrust of the curriculum and the qualifications reforms, the implementation of the frameworks in the secondary school has been stalled for political reasons in 1992 and again in 1996 (*cf. Learn*, 1995c). Concerns both teachers and the PPTA have expressed range from issues which relate to wage bargaining, excessive workloads as a direct result of the introduction of the frameworks, and the lack of resources made available for assisting the implementation of these reforms (*ibid*; *The Press*, 1995b; Boyd, 1996; *The Evening Post*, 1993; Cooney, 1993).

As already demonstrated, it is evident that the aims underpinning the curriculum, training, and qualifications reforms are, in general terms, supported widely. However, certain sectors, such as the universities, continue to appear unconvinced of particular aspects of the reforms which affect them. In the next section, the tertiary reforms will be appraised while focussing on the qualifications and industry training reforms in particular.

SKILL NEW ZEALAND: FIT FOR PURPOSE?

It seems to be appropriate to examine whether the Skill New Zealand initiative is 'fit for purpose', a term which is employed frequently by NZQA with regard to the NQF. From the outset it is obvious, and this has been emphasised throughout the various parts of this work (either implicitly or explicitly) that in the absence of a sufficient research base, authoritative conclusions with regard to the 'success' of the tertiary education reforms in terms of an improvement in the quality of education and training cannot possibly be drawn. What seems to be clear from the preceding section is that, in quantitative terms, considerable progress has been made by the Skill New Zealand strategy.

This section starts off to appraise the conceptual base upon which the training and qualifications are founded. The central aim of achieving parity of esteem between education and training, as proposed in the Hawke report (see chapter 3), and promoted vigorously by NZQA (*cf.* Barker, 1993b), is such a key concept. This aim appears to be both logical and desirable for those proposing a new qualifications structure (*i.e.* the central government) and includes the inauguration of a new nomenclature for educational qualifications, which marks a clear signal for their distinctiveness from the traditional qualifications.

Under the NQF, it may not be clear to a layperson, and perhaps others, whether a national certificate in a certain area and at a particular level replaces a trade certificate or whether it is in a field in which (national) educational awards have not been available before. Although this is not a major issue since the NQF qualifications are basically 'new qualifications which serve newly defined purposes'. What is a potentially important issue is that the public must be allowed to gain confidence in the system. The general public, like other user groups, will ultimately pass judgement on whether the new regime is fit for its purpose.

An increase in the public awareness and understanding of the NQF and the industry training strategy is therefore pertinent. Hood's (interview, 1996) viewpoint that a lot of people do not show much of an interest in the NQF until it actually impacts on them personally is a not uncontentious position, in spite of it being common-sense. Since many NQF qualifications already are publicly available, and in light of the ongoing introduction and development of an education and training market, (potential) learners have the right to know what is available in terms of new national educational awards. In addition, it ought to be the task of the central government to inform the public as to why this new system has been set up.

As 'consumers' of education and training, especially in the PCET area, students now have to pay a substantial proportion of the costs themselves, and it is not unlikely that it will increase (Ministerial Consultative Group, 1994). Given this consideration, students should be able to make choices based on accurate, quality information. The announcement the Minister of Education made in 1996 that the changes in the secondary school are being delayed (Boyd, 1996) is not only indicative of the scope and the complexity of the education reforms but also means that major policy issues still have to be resolved in relation to the implementation of the NQF in the secondary school.

This delay will also mean a prolonged transition period in which parallel qualifications systems will be operational. This may negatively influence the public perceptions of the qualifications reforms, particularly when one considers that the NQF target implementation date has already been deferred twice (1996 and 1998). According to the Education Ministry, 2004 would now be a possible completion date for the school changes (*ibid*). These extended timeframes do indicate that the magnitude of the education reforms may well have been underestimated.

Related to the above issue is the question how much research has gone into the NQF and whether NZQA could have adopted a different approach to produce perhaps a more robust and credible education and training model. As stated in chapter two, there was considerable urgency on the part of the government in the mid 1980s to initiate a radical and comprehensive reform of education and training, as well as in other areas and this was followed soon afterwards by a decision to create a validation body, which ultimately led to the formation of NZQA in 1990.

The Authority was not conceived by the government as a research institution, however, and its mandate was confined to developing a qualifications framework, not to implement it (NZ Government, 1990). What seems to be quite clear is that prior to the establishment of NZQA the issues surrounding PCET, *e.g.* apprenticeship reform, had been the subject of wide discussion and investigation among the major role players and the government. The lack of academic research into this area, both then and now, is notable, a point that has been rightfully made by Hood (interview, 1996).

NZQA's approach toward research may be characterised by its emphasis on applied, action research which incorporates the exchange of research and policy information between the Authority and overseas government bodies, which are charged in their countries with similar functions, such as SCOTVEC in Scotland and NCVQ in England (Lythe, interview, 1994). A not unimportant aspect of this approach, it seems, has been the numerous visits of NZQA staff to these overseas bodies and organisations such as OECD, ILO, UNESCO and the European Union (Lythe, personal communication, 1996). This approach appears to be a valid one and, in this respect, there is little reason to criticise the Authority.

What is more important, however, and on which judgement should be passed, is the theoretical construction of the NQF and the key notions underpinning it, because these represent the 'product' of NZQA's research

and policies. Some commentators see the NQF concept as sound (Ministerial Consultative Group, 1994; Wagner and Sass, 1992) while critics have condemned it as a bad design (Irwin, interview, 1994) or strongly rejected particular elements of the new approach, *e.g.* the application of unit standards to university education (*cf.* Hall, chapter four).

The Tertiary Lead Group (1994:17) has recognised that different types of standards exist and that provider degrees should be able to be registered on the Framework as courses, an idea which the previous Minister of Education strongly rejected as a possibility (Smith, interview, 1994). In this light, a broader approach to standards-setting constitutes a major policy shift. This shift will appease at least some of the concerns the universities are having with regard to the NQF, in particular, since this approach will be a preferable one for pedagogical reasons.

There is no empirical evidence that would suggest that NZQA's standards approach may work in university education. Considering that this approach is experimental, in the sense that although a number of mainly Commonwealth countries are about to or already have embraced this new approach, no evidence is available currently that may lead one to believe that it will improve the quality of education and training. On this subject, the TLG (1994:17) has acknowledged rightfully that because the standards approach is new, it does not mean that it will be successful.

This is likely to be one of the more important reasons why the universities refrain from being associated with NZQA's NQF. Lockwood Smith's belief that a Ph.D, for example, might be expressed in a single standard, (NZQA, 1994b:63; Barker, 1994) appears to be an untenable proposition since this does not only influence the nature of university education but also may compromise the standard of its education internationally. In light of this argument, it seems that NZQA's assertion that education and training should be viewed as having no status differentiation is flawed.

The purpose and the nature of academic learning in the humanities, for example, clearly differs from a traineeship in hairdressing or automotive engineering in terms of those aspects. From NZQA's viewpoint, of course, a differentiation in status between education and training is objectionable as this conflicts with the basic philosophy that underpins the NQF, *viz.* it does not matter where, what, when or how you learn since this would contradict the principles of learner and institutional flexibility, which are some of its key features.

Although some may find this an élitist stance, the real issue here is whether the flexibility principle that is so dominant in the concepts of both the NQF and the system of seamless education is being stretched too far or not. The reason for putting this question is not based on antagonism towards these concepts but is merely a function of critical analysis. This said, however, it would appear that, at a general level, the concepts of NQF and 'seamless education' are sound and perhaps should be viewed as visionary.

Unlike Irwin (1994a), who recommends in his report for the Business Roundtable the creation of three different pathways for Form 6 and 7 students (an academic, technical, and vocational stream), it is held that such differentiation unnecessary restricts the pathways into tertiary-level education for senior secondary students. Streaming at the secondary level would constitute a retrograde step, as history has shown us in New Zealand with the technical high school (see chapter two).

Irwin's recommendation, which clearly seems to be conservative, conflicts with a 'modernisation' movement instigated by government, industry, and business to set out to achieve macro economic objectives, *e.g.* raise the skill level of the workforce and increase both the participation and the attainment rates in education and training, which brings one back to the issue of élitism.

Given that educational change is continual, all those involved will reposition themselves in response to changing realities. Therefore, in an emerging education and training market, differentiation in status between NQF and provider qualifications will have significance, particularly in light of a policy development of the NQF becoming both inclusive and comprehensive (NZQA, ETSA & Ministry of Education, 1996); which represents a move from a 'single, harmonised NQF' to a 'single, comprehensive and integrated qualifications structure' (*ibid*).

Moreover, the level of the NQF credential will signal a market value, as does the field one has attained a national certificate in. The Framework, in essence, is a hierarchy of educational awards which has been designed for facilitating extensive credentialling. Students or learners (25) are allowed under the NQF to attempt unit standards at the different Framework levels. Achievement in this system relates directly to student motivation, and excellence, as maintained by NZQA, can be encouraged by a multi-level NQF (Coogan, 1996).

A concept central to both the qualifications and the curriculum frameworks is 'student-centredness'. It remains to be seen if and to what degree learning can be genuinely centred around a student. Independent learning, as pointed out by Viskovic (1992:337), is not possible in its fullest sense since learning will still be 'mainly teacher-planned and teacher-resourced'. On this subject, Hood (NZQA, 1993g) claims that a shift away from the traditional classroom-based timetable is already occurring in an increasing number of secondary schools and he predicts that educational and career guidance will become key school activities (*ibid*).

In this context, it would also be a mistake to assume that evidence collection by students for a standards-based assessment (see previous chapter) will be unproblematical. With reference to the United Kingdom standards assessment experience, Coogan (1996:47) indicates that some students may have motivational problems with the clerical nature of

portfolio maintenance. Since both evidence collection and presentation for assessment for the award of credit is so important under the NQF, record keeping guidelines and the teaching and practice of presentation skills are likely to be a key to student success. The paradigm shift in teaching and learning demands that both students and teachers are to be trained and resourced sufficiently in order to deal with the new education environment and, importantly, for them to claim ownership.

A seamless education system also means that students can study or train towards different Framework registered qualifications at the different places of learning, either concurrently or consecutively, gaining credits towards or gaining complete qualifications. The choice simply is the learner's. The traditional primary functions of institutions (such as for example a college of education offering teacher training courses) will be and already is becoming a thing of the past.

Educationists in Christchurch, for example, intend to open a private training college following accreditation approval from NZQA and will be providing teacher training (Martin, 1996); as a consequence it will be in direct competition with the colleges of education. It is too early to judge whether this development is a sensible one but it appears that there is no consensus on its desirability. The Alliance political party (1993:3), for example, believes that 'the promotion of aggressive competition between educational institutions and learners is destructive to learning and education in general'.

MP Austin (interview, 1994), on the other hand, questioned why Lockwood Smith had not described the primary functions of the PCET institutions at all, but instead focussed on promoting his seamless education concept. Surely, he did not commit himself to this for what are obvious reasons. Practice shows that the institutional boundaries between and across the various education sectors are already gradually disappearing. For example, some 200 secondary schools (or 44%) have

been accredited to assess against industry unit standards, a measure which in itself may bring together the worlds of work and education closer.

Flexibility of delivery of registered NQF standards and qualifications and the concept of learner choice are at the heart of the current educational changes. Another important concept, in this respect, is that of 'learning partnership' between enterprises and schools, where theoretical school-based learning is combined with contextualised competency-based training in the workplace (Moorhouse and Nicholson, 1994). Extensive co-operative links not only exist between industry and schools (The Careers Service, 1996; ERO, 1996a) but also between polytechnics, schools, universities, and industry (NZEF, 1994c; *Polytechnic*, 1994) (26).

The polytechnic sector has changed dramatically in the 1990-1996 period. It has not only grown by about 46% but it also is expected to have more than 70 degree programmes in 1996, either approved or under consideration (*Polytechnic*, 1996), some of which are master degree programmes. Auckland Institute of Technology is currently applying for university status, a trend which is likely to be followed by some other polytechnics (*ibid*). These significant institutional changes are compounded by the polytechnics' commercial relationships with the ITOs, which are vital to its existence.

In summary, the structure, the organisation, as well as the nature and the purpose of polytechnics have been changed by the "Learning for Life" reforms, as was intended. In the emerging model, which is reflective of the 'new vocationalism', the terms of the relationship between the polytechnics and the ITOs could well be dictated by the latter, *i.e.* the single buyer of off-the-job training (*cf.* Hotere, 1996a). However, overemphasising this point would be inappropriate since both operate within the same commercial environment. The point to stress, on the other hand, is that ITOs plainly have this power.

Returning to the national qualifications framework, it has been demonstrated that in terms of the underpinning principles a lot of support exists for it. Hall (1996a:3) acknowledges that the NQF has the potential to achieve certain aims if designed well, *e.g.* to foster the blending of vocational and general education in a way that recognises the complementary and overlapping nature of each, but also recognises their unique values and differences. He believes that it has the potential to improve access to education to create acceptance of all qualifications no matter where they are obtained and also has the capacity to engender widespread agreement on basic principles which are underpinning good educational practice (*ibid*). The potential that inheres in the NQF approach is unquestionably positive and promising when considered from a general perspective.

In terms of the Framework as a structure, the logic of encompassing senior secondary, PCET and higher education is easy to grasp although the model is undoubtedly ambitious and experimental in nature. To focus too strongly on those characteristics is unhelpful. The aims of the NQF, it is my contention, are commendable from the viewpoint of students, one of its main user groups. No longer will a philosophy of 'compulsory failure' of a large proportion of the student population through a particular form of norm-referenced assessment be allowed to dominate our thinking.

But undoubtedly this is and will remain a controversial issue since people enter the 'education and training market' on different terms (*cf.* Brown, 1995; Gordon, 1995). In New Zealand this has been established empirically in relation to the school sector in particular (Waslander and Thrupp, 1993; Lauder *et al.*, 1995). ERO (1996b:7), for example, points out that the educational reform objectives of school choice and competition ought to have improved the quality of education but draws the conclusion that as yet 'the potential value of school choice has not been realised'. Also,

the market is to be viewed as being another mechanism of exclusion, just like class, as educational research has shown (Bates, 1992; Ball, 1992, cited in Bates, 1992; Hargreaves and Reynolds, 1989).

Moreover, the problems associated with this issue have been compounded by a proclaimed move of a group of Auckland secondary school principals to detach itself from the NQF because they prefer a system of external examinations to be continued rather than the unit standards approach (Hotere, 1996b). This proposal for a dual system, which is believed to be supported by 80 schools, has been put before the NZQA Board (*ibid*). The Education Minister has indicated that a dual framework would undermine the basic principle of the NQF; *viz.* that qualifications need to be portable.

But, again, the NQF has to be acceptable to all in the view of the minister (*New Zealand Education Review*, 1996). According to Bennett (interview, 1996), both Creech and the NZQA Board are looking for a compromise. The Auckland group is not alone in its bid for a separate qualifications framework because Maori education groups are proposing the same as a result of their frustration with 'NZQA's handling of Maori education' (Matheson, 1996:1).

The open-ended nature of the NQF at the lower end is a distinct feature and in conceptual terms is non-*élitist*. In practice, however, barriers will exist for the attainment of NQF qualifications. Firstly, an individual will usually have to be in employment in order to meet all of the requirements for the award of a national certificate (Stewart and Hamlin, 1992b). Secondly, social mobility, as promoted under the NQF, may contrast with a disinterest on the part of employers in a person gaining a complete NQF award for, for example, pay purposes (Willyams, interview, 1994). It is equally possible that individuals want to get only specific unit standards which are important to their jobs or out of personal interest.

It is also not quite clear whether a tradesperson in a standards-based system can actually become competent without gaining a complete qualification (Griffin, interview, 1994). As a desirable topic of future research, an investigation could be made as to what extent, if at all, the ITOs are setting excessively prescriptive requirements for their new qualifications.

On the subject of unit standards, there is a widespread consensus now amongst educators and educational researchers that it is impossible to derive unambiguous standards (*cf.* Wolf, 1993; Coogan, 1996). This position, it seems, is now being shared by NZQA and constitutes a departure from its earlier thinking (*cf.* Lythe, interview, 1996). The very fact that assessment needs to be moderated in this model is evidence in itself that unit standards are not performance standards which are totally clear and transparent (*cf.* Hall, 1995a).

But as described earlier in this thesis, NZQA applies a systemic approach to 'quality'. This integrated approach is more than the sum of the parts since it ensures the quality of educational provision and protects the interests of the end users of NQF qualifications through NZQA's approval of their fitness for purpose. The 'quality assurance' steps in this model (see chapter four) interconnect each of the key aspects in a standards approach. However, is this system as strong as its weakest link?

According to Bennett (interview, 1996), the axioms of flexibility, portability, and credit accumulation/transfer are key principles in the Framework which she believes will not be changed. The evidential model of standards-based assessment, however, may be modified as one of the NQF's key principles in that it could be linked to external written examinations in the secondary school, or to practical on-the-job examinations in the trades area (*e.g.* hairdressing). As a consequence, one could possibly argue that the 'purity' of the standards approach is being compromised here.

The inclusion of examinations in both the trades and the school areas of the NQF will pose a pedagogical and philosophical dilemma. However, as the NQF is being driven politically, the real issue, it appears, is a concessionary one. From an educational perspective, no reason exists as to why standards and examinations should be deemed incompatible (Coogan, 1996). Hood (interview, 1996) points out aptly and conveniently that a wider perception of examinations should be employed in New Zealand instead of solely relating to it as a written test. He asserts that examinations can consist of a practical examination or, for example, a project, while asserting that they be used for valid reasons (*ibid*).

Any move to include 'examinations' into New Zealand's standards system would increase inter-assessor reliability and, potentially, lead to an increased public acceptance of the NQF. Additionally, teacher workload would be reduced by introducing this measure (Coogan, 1996). With regard to moderation activities, these are quality assurance measures setting out to ensure valid, fair and consistent assessment decisions. The moderation costs in New Zealand are 'large and growing', according to Coogan (*ibid*, p.132) (27) and, in the view of an NZQA official, may prove 'to be more expensive than thought at first' (Lythe, interview, 1996).

With a view to both reducing the moderation costs and decreasing the organisational complexity and intrusiveness of external moderation, NZQA *may* take the decision to adopt an audit approach to moderation consistency of providers (Bennett, interview, 1996) (28). In Bennett's view, the use of assessment guidelines and item banks may be desirable in moderation activities (*ibid*).

NZQA deems assessment guidelines for secondary school subjects to be important in that they ensure an increased consistency in assessment decisions under the NQF for which reason they are being developed. In the trades area of the Framework, assessment guides are developed by some of the ITOs on an entrepreneurial basis (Lythe, interview, 1996). It is my

belief that these guidelines are almost indispensable in an outcomes-based system since they provide a means to bridge what is a 'curriculum gap' between specified standards and teaching practice by providing examples of 'best practice' to workplace assessors and teachers.

The implementation of a standards-based assessment and learning model will, of course, be successful only when the assessment and pedagogical practices are being transformed. Professional judgement in a standards model is deemed to be of central importance, and teachers and workplace assessors are trusted to make the right decisions. Lythe (*ibid*) makes the important observation that the degree of sophistication and skill level school teachers need to have are not there (in New Zealand), which is a view consistent with Gipps's (1994:160) general statement that 'evidence is widespread that teachers are not well trained in assessment'. Clearly, these statements have significance since they underline the salience of issues such as funding, resourcing and teacher professional development in relation to the implementation of the reforms.

In the trades area of the NQF, on-the-job assessment is for the first time an integral part of a national standards-based training and qualifications structure. In the absence of research into NQF workplace assessment practices, it is impossible to determine whether these would constitute an improvement on traditional apprenticeship practices. What is questionable, on the other hand, is the government's decision to hand to employers 'blanket responsibility' for the provision of training and assessment for NQF qualifications.

Evidently this is representative also of a move towards a high trust system which, in part, is based on assumptions that employers will commit themselves in sufficient numbers to delivering quality training related to the NQF. In spite of the statement made earlier that Skill New Zealand is not unsuccessful to date, many small employers hardly know that the NQF

exist (Lythe, interview, 1996). This should be of concern to decision-makers in PCET.

The institution of the ITO structure by government is a move that should be questioned for a number of reasons. But firstly, I believe, the voluntary, 'bottom-up' approach to their development can only be seen as the right decision. By promoting the notion that (vocational) training should be designed for industry by industry, the aim of government is clear, *i.e.* to pass responsibility for training on to ITOs which, on behalf of their industries, develop training and set skill standards. The market forces in education and training also apply to ITOs and, as anticipated, ITOs are expected to merge and disband (29).

In terms of its functions, an ITO is not entirely a new phenomenon in New Zealand because some of those are not too dissimilar from the statutory functions of the national and local apprenticeship committees. One key difference is that (apprenticed) training, which used to be under the purview of the Labour Department, has now become the responsibility of the Minister of Education. The ITO's main characteristic is arguably its key role in the qualifications and training area.

ITOs upon recognition by ETSA assume responsibility for training and standards-setting in their industry. In effect, the only role relating to the named area it cannot undertake legally is providing training. The success of the Skill New Zealand strategy appears to depend to a great extent on the successful development of the ITOs which the government has recognised in terms of its ongoing funding commitment. They are intermediary organisations, in that their own viability is determined by industry support but, conversely, could be viewed as entities with a substantial power base vis-à-vis central education agencies, such as ETSA and NZQA, and the central government.

ITOs are of primary importance in the government's aim to achieve its economic objectives. As a consequence of the powers invested in the

ITOs by government, industry will have, through the ITOs, more influence in education and training in terms of content, delivery, and organisation than it ever had as well as increased control of knowledge. ETSA and NZQA are, in essence, agencies charged with the responsibility of ensuring that appropriate infrastructures are being developed and maintained to support educational provision.

On the subject of the NQF, it is a debatable point as to whether the Framework will be a simpler qualifications system than the one existing directly prior to the reforms in the late 1980s. It can be argued that under the NQF a plethora of qualifications are being developed which are linked by NZQA defined quality assurance processes, but which are currently under policy considerations because of the evolving character of the NQF. Government's efforts to ensure that the Framework, and Skill New Zealand, are 'fit for purpose' are understandable but predominantly relate to political issues, not to pedagogical concerns.

It is at the 'pedagogical level' that concerns remain with regard to the NQF. Inconsistencies, as stated previously, exist at the qualification and the unit standard levels. These are normally developed for and by industry which could lead to inflated qualifications. A theoretical basis for the NQF, a further point of concern, is lacking. Key pedagogical issues which underpin the NQF, *i.e.* generic skills transfer and the Framework levels, are not based in educational theory. Many of these concerns, it is believed, will be examined by the Authority in due course (Bennett, interview, 1996).

With regard to the secondary school, ERO (1996b:7) has expressed concern that the role of the secondary school is undefined as a result of the reforms, and that board of trustees are left to decide for themselves what the school is for. In the same vein, Gordon (1995:3) questions whether there is now a school system in New Zealand. In the view of Donald Hirsch (1995; quoted in Gordon, 1995:4), 'Rather than a system, it [NZ] has a series

of autonomous providers of education ... run by trusts elected entirely by parents'. Similarly, it could be argued that in the near future there will be no system in PCET but a highly individualised national qualifications framework. Given the direction of education policy, this move is likely to be reinforced by a possible introduction of a voucher system in lieu of the current EFTS funding system, as advocated by, for example, the Minister of Education and NZEF (1994c; Davies, interview, 1996) (30).

In conclusion, considerable progress has been made to date with the development and implementation of the 'Skill New Zealand' infrastructure. The challenges ahead, however, are manifold, including the arrival of MMP and the evolving nature of the NQF. In essence, the education and training reforms instigated in the late 1980s are about instilling an attitudinal change in employers, providers and the student population alike with a view to an increased and ongoing commitment to education, training and productivity. With this in mind, what could New Zealand possibly learn from a country like Germany?

NOTES

1 The Committee on New Zealand Universities was set up in 1959 by the Senate of the University of New Zealand to report on the condition of the university system prior to its conversion into four, and ultimately seven separate universities; the Committee's report is also known as the Parry Report.

2 At the time of writing (August 1996), the universities are continuing to feel uneasy about a government-imposed association with the NQF. However, as will be demonstrated in a later part of this chapter, some common ground between NZQA and the universities appears to have been found.

3 In chapter four concerns of the universities regarding both the unit standard concept and methodology have already been alluded to, particularly by reference to Cedric Hall's writings. In this chapter, his ideas will be appraised in some further detail since his position is representative of the universities' viewpoint, considering that the NZVCC, in its publications, frequently refers to Hall's writings.

4 An 'objective' is defined by Hall (1995a:4) as a succinct statement of intent which identifies either a desired outcome to be achieved from a particular action or a desired process which should be undertaken or experienced. This definition, in his view, allows for both outcome and process objectives. The terms learning outcome and element (as used by NZQA) are examples of the first.

5 This statement, however, needs to be qualified further. Interviews were predominantly conducted with representatives of the major role players and those held in New Zealand did not include university staff, except for Professor Hawke with whom I did not discuss the issue at hand.

6 The Vice-Chancellors' Committee argued that API did not meet the legally defined characteristics of a university, as stipulated in the 1990 Education Amendment Act, because it offered only two masters degrees (Robson, 1996; see also NZ Government, 1990:33).

7 NZVCC justifiably argued that because API was offering only two masters degrees, the institution did not meet the legally defined characteristics of a university; *e.g.* it did not have a wide diversity of teaching and research (Robson, 1996:47).

8 The Tertiary Lead Group comprised nine members, chaired by Dr Bryant, Manager of Scientific Services for Carter Holt Harvey, and included three vice-chancellors, the principal of a college of education, the chief executive of a crown research institute, a Maori academic, the president of the University Students' Association, and the director of a private training establishment (Ministerial Tertiary Lead Group, 1994:5).

9 A provider qualification is defined as 'an approved programme developed by an accredited provider and registered on the Framework' (TAG, 1996:89), whereas a degree is being described generically as 'a qualification awarded after satisfactory completion of an achievement in a programme of advanced study, taught mainly by people engaged in research and which emphasises general principles and basic knowledge as the basis for self-directed work' (*ibid*, p.88).

10 A provider is described in the 1996 TAG report as 'an individual or organisation supplying education and/or training and/or assessment services; includes schools, institutions, establishments and workplaces' (see also note 9).

11 This information was provided by Catherine Bennett, the Acting Team Leader, Policy Monitoring and Review, NZQA, who reported in an internal briefing on the findings of the 1996 TAG report.

12 In its report, the TLG has recommended that the NZQA Board be increased from the current range of 8-10 members to 10-12 (Ministerial Tertiary Lead Group, 1994:25).

13 Hall states that his definition of an 'objective' has been adopted by Victoria University with only a slight modification.

14 In the Ministry of Education (1993c:33) "Education for the 21st Century" discussion document the figure for 1995, 1998, and 2001 were set at 30%, 45%, and 60%, respectively of the employed workforce.

15 This information was obtained during an NZQA in-house briefing by the Framework Development Team on 10 June 1996;

16 See note 14; the total number of qualifications to be registered on the NQF also depends on whether university degrees and provider qualifications will be associated with the Framework and in what format this will take place.

17 As stated in chapter four, under the Framework 120 credits is the equivalent of one year of full-time average learner time.

18 Although the ITO concerned has not been contacted to verify this, its intention to develop a degree course has been informally acknowledged during interviews (*cf.* Lythe, 1996) and informal work-related conversations.

19 Although it is not clear from the ETSA publication what the trainees are exactly satisfied with, it may be assumed that this is likely to pertain to both the 'quality' and 'relevance' of NQF-linked training.

20 NZQA research comprised a survey of 7,000 secondary school students who were asked to evaluate the standards-based approach of the NQF in terms of its best and worst features (ETSA and NZQA, 1996a).

21 Heylen obtained its research data from fieldwork that was carried out in February 1992 when 1,000 members of the general public were interviewed in their homes (Heylen Research Centre, 1992).

22 I wish to emphasise that technically it is not correct to say that NZQA sets standards, as its role is to facilitate the setting of standards.

23 MRL Research Group's (1996:4) survey was based on a nationwide telephone interview with 1024 people aged 15 years and over.

24 See also chapter two.

25 The latter term, which is frequently being used by NZQA in its publications, is a more 'neutral' term which fits its educational philosophy of parity of esteem between education and training better, as it seems.

26 According to the ERO report, the nature of most school-industry links are proven to be 'informal, intermittent or single incident relationships involving the provision of work experience for individual students' (1996:7).

27 A total of approximately 450 moderators are currently employed by NZQA for the conventional school subjects; the number of moderators employed by the ITOs is not known by the author. I was informed by an ETSA officer that no data were available at the Agency on both the number of ITO moderators and ITO moderation costs.

28 It needs to be stressed here that this is an informal statement made within the context of an interview and does not reflect official NZQA policy. At the time of writing, NZQA is undertaking a moderation review project which looks into the issues raised here.

29 The Banking ITO has recently been disestablished, for example, whereas the Telecommunications Education and Skill Standards Organisation (TESSO) has decided to merge as at 1 July 1996 with the Electro-Technology ITO (EITO) because of common interests. It is hoped that the merger will attract more trainees (ETSA and NZQA, 1996d).

30 A voucher system was recently advocated by the Minister of Education in a Canadian speech (Gordon, 1995).

CHAPTER 6 EDUCATION AND VOCATIONAL TRAINING IN GERMANY: AN HISTORICAL SURVEY

TOWARDS THE FOUNDATION OF THE FEDERAL REPUBLIC OF GERMANY

The immediate post-war period left the Germans with a sense of disorientation and disbelief, caused by the humiliation of defeat, loss of kin (1), and high levels of unemployment. Hundreds of thousands of people were displaced, and innumerable cities had been ruined by Allied bombs. The Germans found themselves in a state of mental disarray following 12 years of Nazi propaganda, while youth in particular did not, and could not, have an understanding of the meaning of democracy. This made the task of the four Allied Forces administering the western zones a difficult one (*cf.* Taylor, 1981). Germany was not only isolated economically and socially from the rest of the world, but also educationally, in that in the early post-war years contacts between German scientists and scholars with their colleagues in other countries virtually came to a halt. Formal education had already ceased to function properly during the war, of which the closing of a large number of schools and universities towards the end of the war by the National Socialists was but one example (Taylor, 1981:30).

Against this background the term '*Stunde Null*', or zero hour, has been used frequently to indicate the commencement of rebuilding of post-war Germany. This view, on the other hand, has been challenged by the thesis that large sectors of the industry were still in full operation after the end of the war, and that a new start therefore was a misconception (Lüdtke, 1977:97; Ardagh, 1988:83). Nevertheless, '*Stunde Null*' contains a strong reflective component which marks a collective awareness of the Germans that the nation's tragedy was mainly to be attributed to human

failure, which was deemed to be a failure of the German character (Taylor, 1981:103). As a consequence therefore, German education - both *Bildung* (education) and *Berufsausbildung* (vocational training) - was seen to have failed the nation (*ibid*, p.97). This notion, which was held by the three Allied Forces in the western occupation zones and the Germans themselves, was to precipitate a change in the philosophy and provision of vocational education.

Immediately after the military and economic collapse of the Third Reich, a vacuum existed as to the organisation of the vocational training system in the Federal Republic of Germany. The federal government withdrew from its previously exercised responsibilities, and left its tasks in the hands of industry-led groups, such as the chambers of industry and commerce, which resulted in 1952 in their setting up the Office for In-Company Training (ABB) (*cf.* Hilbert *et al.*, 1990). In these pre-Republic years, political discussions were held in the *Länder* as to what role the State should play in vocational training, and whether central planning was desirable in order to stimulate the development of the economy. The Association of German Chambers of Commerce and Industry (*Deutscher Industrie- und Handelstag*; DIHT), in wishing to retain its control over vocational training, strongly claimed that the State's responsibility for on-the-job training was to be restricted to the provision of a framework within which stakeholders could pursue their own interests (*ibid*, p.131). Already during the Second World War, the principles on which the German economy were to be based once the war was over, had been discussed by Herbert Hoover and John Maynard Keynes, among others. These principles formed the basis for the subsequent development and the application of the concept of the social market economy (*soziale Marktwirtschaft*) (*cf.* chapter 9) in the Federal Republic, which essentially entailed the confinement of the activities of the federal state in the

economic sphere to providing framework conditions, as had been contended by the DIHT (Lampert, 1992).

At a meeting of heads of state of occupation forces at Potsdam in July/August 1945 the underpinning principles for the political future of post-war Germany and the democratisation of its citizens were discussed and agreed on. Atlee, Roosevelt and Stalin shared the view that Germany needed to be cleansed of Nazis and its citizens should be taught democratic and peaceful values, which were to be achieved through a policy of denazification and re-education (Anweiler *et al.*, 1992). These objectives were reiterated in the various Allied directives of which the 1947 American 'Guiding Principles for Evaluation of Educational Programs', which sought 'to safeguard the educational standards in both denominational and interdenominational schools in Germany' (Helmreich, 1949, *op.cit.* in Lawson, 1981:35), is regarded to have formed the basis for the Allied Control Council Directive 54. The latter document contained the following ten principles for the democratisation of Germany:

1. Equal educational opportunity for all;
2. Free tuition in all public schools;
3. Compulsory full time school attendance required for all between the ages of six and fifteen and part-time compulsory attendance from sixteen to eighteen years of age;
4. Schools for the compulsory periods should form a comprehensive educational system to serve all youth;
5. All schools to emphasise education for civic responsibility and a democratic way of life, both by means of the curriculum and by the organisation of the school itself;
6. School curricula to promote international good will and understanding in every way possible;

7. Professional, educational, and vocational guidance should be provided to all;
8. Health supervision and health education should be provided in all schools;
9. All teacher education to be on the university level;
10. School administration to be democratic and sensitive to the wishes of the people (Lawson, 1965:36-7).

According to Lawson (*ibid*, p.37), the nature of the formulation of these principles not only left room for different interpretations by the various occupation forces, but he has also critically appraised the limited effects of the denazification and the re-education programmes. He further contends that the occupation administrators suffered from a lack of background knowledge of German society and thus failed to understand the effects of totalitarian governance on a society. Fulbrook (1991:149) claims that at school level the western Allies failed to restructure the education system in any radical way, and that in the remoulding of Germany in both the western and eastern zones the social and economic transformations of the occupation period were probably more important. Other authors have noted that the enforcement from the outside of 'democratic education' and Germany's unexpected speedy ascendancy to independence were reasons for the Allies to refrain from further insisting on the implementation of their educational reforms (Robinson and Kuhlmann, 1967:313).

Notwithstanding the above criticisms, the Allied Forces in Germany endeavoured, with various degrees of success, to reform education in their respective zones. The pursuit in the three western zones of a federalistic education policy option was a common aim. The British, American and French Forces, however, used different methods for educational restructuring. Where the British policy of limited intervention, and an

emphasis on informality in their contact with Germans, reflected their belief that reform attempts needed to be based on an appreciation on their part of the historical and cultural backgrounds of the Germans and on co-operation, the American and French occupation administrators, on the other hand, by adopting a more 'colonial'-type approach tried by means of either force or persuasion to carry over their own systems (Lawson, 1965:100-1; cf. Birley, 1978). Contrary to the political basis for educational restoration in the western zones, the Russians adopted a policy not of achieving denazification through the ideological screening of millions of people, but 'rather it was used to oust the economic and social élites from their pre-1945 positions' (Berghahn, 1982:192). For this reason Stalin ordered the confiscation of more than 3 million hectares of land from the propertied classes without compensation, of which two-thirds was redistributed to labourers and peasants, while the remaining third was placed under the administration of local authorities. At the same time, educational reforms were introduced which saw private schools abolished and open access to education irrespective of social background and status promoted (*ibid.*, pp.193-4; cf. Sontheimer, 1995). These measures, among others, were to set in place the necessary conditions for ushering in communism in what would become the German Democratic Republic. Although the success of educational restructuring in post-war Germany by the Allied Forces, individually and collectively, is difficult to ascertain due to definitional difficulties and problems of measurement, a foundation nevertheless had been laid from which education and training in Germany could progress into the next stages of its development.

It was especially with regard to vocational education and training that certain advancements were made by the American, French and British Military Governments in occupied Germany. Character and personality training (*Menschenbildung*) and political education, for example, which

until the end of World War II had largely been excluded from the vocational school curriculum, now became compulsory subjects, and were introduced under the policy aim of re-education. Prior to this, German apprentices were merely trained to become trade specialists. Through the efforts of the western Allies, not only was the status of the *Berufsschule* raised and its curriculum reformed, but recognition of the vocational education theories of Kerschensteiner was achieved to an extent never seen before.

Under Potsdam Agreement of 1945 the Allies established a Control Council (*Kontrollrat*) in Berlin in the same year, which had as its task the fostering of co-operation between the four occupying nations with regard to issues relating to the whole of occupied Germany. Any decision the council was considering taking had to be approved unilaterally by all the parties involved. A proposal for the setting up of a central German government found support from all the Allied Forces, except the French Military Government, who also raised objections against the Potsdam Agreement intention to treat Germany as an economic entity (Sontheimer, 1995:22). Disagreement on the central government issue led to a situation in which the Allies considered the *Länder* to be the most important political entities. In good time, free elections were introduced in each *Land*, which resulted in the establishment of democratic constitutions. The Allies were thus influential in the foundation of the German federation, as they made it impossible for a central west German state to exist without a federal structure, thereby learning a lesson from the Weimar experience (*ibid*, pp.28-9). Conflict between the occupation forces increased in 1946 when it became clear that a common major policy aim of both the United States of America and Great Britain, *i.e.* to ensure that the Germans could take care of themselves through increasing the production levels and in overcoming

an existing food crisis, was not shared by the Russians. It was the latter's prime aim to ensure it would receive from Germany monetary compensation for losses it had incurred in the war (*ibid*). This unresolved discontentment ultimately led to the breakdown of co-operation between the western Allies and Russia in the Control Council. Consequently, the British and the American Military governments started negotiations to amalgamate their respective zones into one single zone (Bizonia) in order to be able to create both favourable conditions for the devolution of increased political autonomy to the west Germans and to deal with the existing economic crises more successfully. The fusion of the British and the American zones into Bizonia came into effect in 1947, a move which was also reflected the western Allies fear of Russian expansionism. These events were to be of considerable importance in the subsequent creation of two German states, but at that time the German public showed only limited interest as their foremost task was to survive the past ordeals.

In 1947 the Cold War became a public fact after President Harry Truman made a speech to the American Congress in which he stressed that it was imperative for the western world to contain communism (Fulbrook, 1991:161). In the same year, the Marshall Plan was announced to help Europe to recover from the war, but its terms were formulated in such a way that it would be impossible for the Soviet-controlled eastern European states to accept (*ibid*, p.162). The economic division of Germany therefore became more evident, and with it the need for the establishment of political institutions in west Germany. The 1948 currency reform and the Berlin blockade led to a situation in which the political division of Germany became almost inevitable. Some last minute attempts to consider alternatives were unsuccessful, and in the western Allies zones a Parliamentary Council formed of representatives of the *Länder* met in September 1948 to draw up the constitution for a West German state (*ibid*,

p.163). The council was compelled to write the constitution in accordance with basic principles agreed upon by the Allies, which specified that the Republic was to become 'a republic, a democracy, a federal, constitutional and socially responsible state' and that it was to guarantee the basic rights of the West German citizens, such as the right of all Germans to choose their profession or trade, their place of work, and training establishment (KMK, 1994; cf. Sontheimer, 1995). The Basic Law (*Grundgesetz*) came into effect on 23 May 1949, by which the Federal Republic of Germany was founded as a democratic and social federal state based on a political system of proportional representation (2) (cf. Parliamentary Council of the Federal Republic of Germany, 1994). The Act, however, contained a clear indication from the legislators that it was to be considered a transitory measure only since reunification with eastern Germany was regarded a foreseeable possibility.

Already by the end of 1945 the western zones occupation administrators had allowed the formation of political parties, *i.e.* the Socialist Democrats (SPD), the Christian Democrats/Christian Socialists (CDU/CSU), the Free Democrats (FDP) and the Communists, of which the first two were to remain major political parties at the time of the first national elections in 1949. Konrad Adenauer of the CDU became West Germany's first Chancellor, and it was under his fourteen year leadership that the Federal Republic of Germany achieved in a remarkably short period of time economic prosperity. In response to the developments occurring in West Germany, steps were taken towards the inauguration of an East German state in Soviet-controlled territory through increased Communist control of political life and the Stalinisation of the socialist party (SED). The German Democratic Republic was founded on 7 October 1949 on the basis of a constitution quite similar to the West German Basic Law, by which the possibility for political reconciliation remained

available. It was amended subsequently in 1968 and 1974 to truly reflect the political nature of the East German society (Fulbrook, 1991:164).

Enshrined in the West German Basic Law was the provision that education in its entirety was to be placed under *Länder* supervision. This underlined the Allied Forces' view of the importance of the *Länder* as political entities in a federal system, and gave the individual West German states prime responsibility for the legislation and administration of education (OECD, 1972:19). Under the Act, the legislative competences of the federal government have been confined to a limited number of areas only (see next chapter). This construction of governance serves the purpose of preventing a situation in which a re-emerging German central state may wield excessive powers again, by specifically granting the *Länder* 'cultural sovereignty' (*Kulturhoheit*). Federalism, however, has been a cornerstone of German politics from the foundation of the German Empire in 1871 until the ascension to power of the National Socialists in 1933, after which a political structure of *Länder* autonomy was restored after 12 years of centralist Nazi policies (cf. KMK, 1994). In East Germany, on the other hand, a highly centralised educational policy was based on Marxist-Leninist ideology and became strongly linked to economic planning (Anweiler *et al.*, 1990:12). While in West Germany cultural sovereignty was conferred on the individual *Länder*, the issue of who has authority over matters relating to vocational training was not addressed at all (Parliamentary Council of the Federal Republic of Germany, 1994:27).

Under the named Act, the Standing Committee of the Ministers of Education and Cultural Affairs of the Federal *Länder* (KMK) was charged with ensuring, through inter-*Länder* cooperation, that a minimum degree of comparability between the *Länder* education systems was to exist. The statutory functions of the KMK, which had their origins in the work undertaken by the *Reich* School Conference in the Weimar Republic, were

and are confined to matters relating to vocational schooling, not to on-the-job training for which the federal state and industry assume co-joint responsibility. Thus, within a federal state structure 'the German education system' is organised on a multi-centralist basis (Arbeitsgruppe, 1994). Accordingly, the political and educational importance of a body such as the KMK is self-evident due to its functioning at the junction of two different but interacting policy levels. The decisions taken by the KMK, however, are not binding on the individual *Länder*. The next section will in particular focus on the development of vocational training prior to the establishment of the Federal Republic, while the remainder of this chapter looks at the evolvement of the education and training systems from 1950 until reunification.

FROM THE EARLY BEGINNINGS TO 1945

The roots of regulated apprenticeship training in Germany go back to the Middle Ages with the earliest guild ordinance being in Cologne (in 1182), related to the trade of wood turning (Münch, 1991:29). Training was strictly controlled by the guilds in these early periods and lasted on average four years, after which a person acquired the status of a journeyman; further training was required for the master craftsman's position. Although the age of admission to, and the length of, apprenticeship training were not uniformly regulated, strict conditions applied for the acceptance of an apprentice by the guild, such as legitimate birth, German origins, and free status (*ibid*).

Government ordinances and police directives issued at regular intervals in the 16th and 17th centuries indicate that intervention was required given 'the unsatisfactory state of affairs in the guilds'. It was not uncommon practice for employers to use apprentices as a cheap employment alternative to unskilled labour while, at the same time, their

training obligations were neglected (*ibid*). Because of the impact of economic liberalism and early industrialisation in Germany, the guilds underwent voluntary disbandment in the 18th century while, at the same time, religious Sunday schools were established in Prussia and industrial Sunday schools in Württemberg (*ibid*, p.38). In the 19th century these schools were to develop into the general and industrial continuation schools, respectively; the latter being the predecessor of the present-day vocational school (*Berufsschule*) (Arnold and Münch, 1994:12).

In the 19th century three events occurred which were significant for the further development of vocational training. Firstly, just before the arrival of the first wave of industrialisation in Germany, the introduction of the Prussian Trade and Industry Code in 1845 not only provided a regulatory mechanism to counter the negative effects of freedom of trade on apprenticeship training, but also was an attempt to institutionalise them (Münch, 1991:30). Those enterprises wishing to provide training for apprentices were now required to obtain approval from the government. Nevertheless, the Code neither questioned the prevailing principle of industrial freedom nor infringed on an enterprise's liberty on how to train apprentices (Stratmann and Pätzold, 1982:117). In the 1849 Amended Code the length of apprenticeship training was regulated to last three years although provision was made for a reduction in the case of an apprentice who had attended an industrial continuation school, but this was at the discretion of the training company (*ibid*, p.120). In the first half of the 19th century, however, the apprentice-journeyman-master craftsman model was by no means predominant as alternative routes for training and qualifications did exist (Hilbert *et al.*, 1990:22).

The second event, the enactment of the 1869 Trade and Industry Code of the North German Confederation, is generally considered to have established the foundation for the legal regulation of the "dual system" of

apprenticeship training; a training model in which an apprentice's in-company training is being complemented by institutional theoretical instruction at an industrial continuation school (Greinert, 1984). Instrumental to the inception and early development of this duality was the determination of the middle classes in the German Empire to protect their interests against social-democratic forces in society (*ibid*, p.572). The 1869 Code, which gave the participating states extensive industrial freedom, was adopted by the Empire in 1871 (von Friedeburg, 1992:244). Still it was not until the end of the century that a distinctive pattern of education and vocational training became both more pronounced and uniform across the German States. Post-elementary education for all German youth was now considered important, and so general continuation schools became a well-established feature of the education system (Simons, 1966:21). Its industrial counterpart, on the other hand, was perceived as making a successful contribution to the economic development of the country. Throughout most of the 19th century the nature and the purpose of these two continuation schools had been under extensive discussion.

The final event was the 1897 Protection of Craftsmen Act. This may be considered the most important industry training law at that time in the German Empire as it not only handed back to the guilds the corporation rights and resulted in a reorganisation of the craft sector (*Handwerk*) but also brought economic stabilisation (*cf.* Münch, 1991; Greinert, 1984). Consequently, chambers of craft were established which were also charged with the statutory responsibility of examining apprentices in the industry. But as the craft guilds were not in a position to take on the task of making arrangements for the general education of apprentices, this task was left to the State. These regulatory measures, and the stipulation in the subsequent 1908 Amendment Act that an employer could train apprentices only if he

had passed a prescribed examination and was issued with a 'limited certificate of competence', ensured that at the beginning of the 20th century there were minimum quality standards in place for apprenticeship training. Hence, the foundations for a modern dual system of vocational training had been laid (von Friedeburg, 1992:246; cf. Greinert, 1984).

The 19th century proved to be significant also in terms of the development of two opposing educational ideals in Germany. The humanitarian educational thoughts of Wilhelm von Humboldt, which were based on Weimar classicism, emphasised the necessity of a broad and wide education for an individual. These were in disagreement with the educational ideas held by Georg Kerschensteiner, the "father of the vocational school" in Germany. While von Humboldt asserted that vocational training (*Berufsausbildung*) gave a narrow and biased view of life and should only be imparted after general education (*Allgemeinbildung*), Kerschensteiner maintained that the training of character was the aim of all education and was best provided through vocational training (*ibid*, pp.39,45).

Von Humboldt, who became Minister of Education for Prussia in 1806, formulated education policies which were based on his premise about the development of individual personality and was to be imparted through the *Gymnasien* (Taylor, 1981:12-3). The implications of this educational ideal was that state education policies favoured a privileged section of society, *i.e.* a small middle class, by which social exclusiveness was encouraged. The consequences that this élitist stance for vocational education were immediate and negative as the function of this sector in the education system was not given any official recognition and negatively influenced the growth of the part-time vocational school. Trade training, consequently, was therefore purposefully placed outside the realms of the

state education system. Thus, in the view of the New Humanist movement classical studies and physical work were essentially regarded as incompatible and, therefore, should not be mixed.

Industrialisation, especially in the latter half of the 19th century, gave rise to economic views more liberal than those held in the preceding centuries, and consequently, the purpose and structure of vocational training underwent significant alterations in the changing economic and social climate. Within this context, the development and application of vocational education theories became more relevant and accepted in German society and they challenged both the existing predominance of Humboldtian '*Bildung*' ideals and the relationship between education and the social structure.

It was Kerschensteiner who understood that a different type of school, *i.e.* the *Berufsschule*, was required for the post-primary schooling of those youngsters who were not educated at a *Gymnasium* or at a general continuation school. He argued strongly that vocational education is as much education for life as trade training (*cf.* Taylor, 1981). In contrast to von Humboldt's ideas, Kerschensteiner maintained that *Berufsbildung* precedes *Bildung* because work, in which a person's trade or profession is exercised, is of central importance to the majority of people. He believed that the vocational school not only had to provide trade training but also had a complementary role to play in character and personality training if society's members were to become responsible citizens (Simons, 1966).

As a consequence of these liberal principles, Kerschensteiner promoted the development of broad-based trade training, which required, in his view, continuation schools to evolve into independent vocational schools (Taylor, 1981:19). Thus, it is the centrality of work in the learning process that clearly distinguishes Kerschensteiner's education theory from von Humboldt's *Bildung* ideals. German education was, and is still today,

characterised by this *Bildung-Berufsausbildung* dichotomy, which has been described by Weinstock (1959) as 'the original sin of the history of German education' (Taylor, *op.cit.* 1981:12).

From the Middle Ages until the first half of the 20th century, apprenticeship training was predominantly confined to the craft trades and controlled by the respective guilds, hence their position of training monopoly. The transition from an agricultural to an industrial society by the 19th century brought about a significant change in Germany's training and qualification needs. Not only were higher and different credentials required, but also government intervention was needed to ease this process of change through regulatory measures (*cf.* Hilbert *et al.* 1990). One example of such a measure was that Chambers and Guilds were charged with the legal responsibility for carrying out control functions in order to improve vocational training (*ibid.*, p.23). Furthermore, craft-based knowledge, skills and qualifications were no longer deemed adequate for vocational training in the industry sector, which had drawn its workers mainly from the craft sector.

The traditional craft apprenticeships had proven to be, in terms of both their training content and teaching methods, particular to the needs and organisation of the individual enterprise. The craft sector recognised that the modernisation of vocational training was imminent, and that therefore an attempt had to be made to develop uniform training standards and, concurrently, to align on-the-job and vocational school curricula (Greinert, 1984:575; Hilbert *et al.*, 1990:25). To achieve this, the German Committee for Technical Education (DATSCH) was founded in 1908.

The tasks of this industry-instigated body were to collect and analyse data on company practices and to group these systematically into

occupational profiles, training and examination prescriptions, so that they could be applied to recognised training occupations (Kutscha, 1982:207; Benner, 1977:58-9). Initially, DATSCH's work was intended to cover only technical education, but it was soon extended to include the whole field of technical and industrial education and training. Both from a policy perspective and an educational and labour market point of view, DATSCH's work has been of considerable importance. Firstly, its work gave proof of the importance of a central standards setting and research body in vocational training matters, and secondly, the concept of occupation was now considered the central theoretical component in the German training model as well as the fundamental building block of work organisation (Max Planck Institute for Human Development and Education, 1983:246). Industry, however, did not stand alone in its quest for progress and reform for the 1919 German Trade Unions' Conference adopted a resolution concerning a comprehensive regulation of apprenticeship matters, which is considered by some to be a precursor of the 1969 Vocational Training Act (Münch, 1991). Of relevance in this context is that one year earlier the trade unions had been recognised as partners in collective wage bargaining. On the other hand, it was quite significant that the government was not involved in these reforms as a major participant, for in the main they were industry-initiated and implemented (*cf.* Hilbert *et al.*, 1990).

In the period between the First and the Second World Wars, the structure of the German training system changed to meet the needs of the developing industries, which, for example, led to the establishment of a system of in-company training for trade and industry by the Chambers (DIHT, 1991:34). As for the school sector, the Weimar Constitution of 1919 brought a change in policy in that the four primary years of the *Volksschule* became the standard for all children, private primary schools were

abolished, and continuation school attendance became compulsory throughout Germany, which also covered vocational education (Simons, 1966; Hearnden, 1976:3). The implication of this education policy was that the privileged position of private schools in preparing students for entry into the *Gymnasium* was removed, so that secondary education became, in policy terms, more accessible to a larger proportion of the population on the basis of completion of the *Volksschule*. During this period, the *Berufsschule* - Kerschensteiner's brainchild - became both the accepted concept and most prominent school type for post-primary vocational education (Münch, 1991:36). It was seen as the task of the part-time vocational school to provide education for youth between the age of 14 and 18, with the aim of both imparting trade efficiency and making them efficient citizens (Stratmann and Pätzold, 1982:128).

Despite its increased popularity in terms of new entrants, institutional vocational instruction was perceived and stigmatised from the start as being of lesser importance than the world-of-work reality of in-company training provided by industry and commerce. This perpetuated the perceptual division between *Bildung* and *Ausbildung*, by which the existing social stratification was reinforced (*ibid*; Wittwer, 1986). According to Greinert (1984:575-6), industry aspired at this period of time to a training model which was basically a different but not necessarily better model than the dual system. He maintained that the industry-initiated 'Factory-school movement' purposefully sought to terminate the existing duality of in-company training and public vocational schooling; an attempt which did not succeed because of the onset of a world economic crisis in the early 1920s (Stratmann and Pätzold, 1982). Conversely, in an attempt to address the perceived unequal status between general education and vocational training, the latter was proposed by opposite lobbyists to

become part of the public education system, but this was not successful either (Greinert, 1984:576).

DATSCH's work resulted in 1926 in the completion of the first occupational profiles, which encompassed an occupational description as well as the training contents and competencies required for a particular skilled worker's occupation (Hilbert *et al.*, 1990:25). The concept of occupation became a central concept in its research from which the curricular, assessment, and examination requirements were drawn. Using 'occupation' as an educational concept had been promoted and advanced by German scholars such as Spranger, Fischer, and Kerschensteiner in a theory in which 'occupation' (*Beruf*) was considered to be a medium for education (Arbeitsgruppe, 1994:561; Horney *et al.*, 1970:331). A second important object of research was the demarcation between the different occupations and resulted in the DATSCH's definition of the three main occupational categories at the level of industrial workers, *i.e.* unskilled, semi-skilled and basic skilled. As a result of this classification, industrial occupations were now differentiated along both vertical and horizontal lines (Stratmann and Pätzold, 1982:125). The advantage of occupational demarcation, according to Benner (1977:125-6), was that it provided industry with transparency as to which occupations were covering specific workplace activities. A second benefit was that it made the standardisation of occupational descriptions easier.

In the context of the unions demanding more influence over industrial and training issues, the employers felt the need to establish in 1925 the German Institute for Technical Work Training (DINTA) in order to back their views by research (*ibid*, p.248). Two years later, it was the Reich's Ministry of Labour's Vocational Training Bill which was to recognise the right for both employers and trade unions to regulate

vocational training matters on an equal basis without government intervention. The trade unions' participation rights were predictably denounced by the employers and von Friedeburg (1992:247) argues that employers used vocational training policy based on their own research as a weapon to restrain the influence of the trade unions.

By the beginning of the National Socialist era in 1933 and as a result of the above developments, a vocational training theory was being promoted by DINTA, and by educationists such as Spranger (3), to increase the role and importance of in-company training over institutional vocational learning. Technical upbringing was now being equated with German upbringing (Stratmann and Schlösser, 1990:44). In this period, the status of trade-based work was raised significantly in both society and the economy by the National Socialists, and aimed at securing a disciplined and fully participatory German work force. Thus the dual system after 1933 became a monist training scheme geared towards military manufacturing as the role of the vocational school was deemed less important (*ibid*, p.45). A central theme in Nazi education policy was achievement of unity given the types of school which were in existence at the end of the Weimar period. Citizens were not expected to pursue post-compulsory studies as a thorough initial education or training course was considered adequate by the National Socialists (Hearnden, 1976; von Friedeburg, 1992). Rather, the educational aims in the Nazi state were for education 'to make racially sound and able efficient individuals and to make community members ready for service' (Lawson, 1965). Consequently, the Nazis sought to establish a schooling system which had a common base for the entire school population, and with a curriculum taught in accordance with the official Party ideology. Special élite schools, however, did exist, such as the six year Adolf Hitler Party School, which had been established by the Party, and a school for political leaders (*Nationalpolitische*

Erziehungsanstalt), which was added to the secondary school (Lawson, 1965:24). On the other hand, academic studies at the *Gymnasien* and the universities were actively discouraged (Hearnden, 1976:4-5).

Under the 1938 *Reich* Compulsory Education Act, and for the first time in history, all youth in Germany were now required to attend the vocational school to the age of eighteen (Münch, 1991:36). Prior to the *Reich's* Act, a situation had existed in the Weimar Republic by which each *Land* government had control over its own vocational education system, so that in this respect an across-*Länder* uniformity was non-existent. The new legislation advanced existing arrangements as it prescribed that the training regulations for each trade had to be officially laid down by the DATSCH and recognised by the *Reich's* Economics Minister before they could be released publicly. Masters and apprentices were now required to observe the training regulations during the apprenticeship, and on the basis of these state regulations, apprentices and employers henceforth entered a training contract which gave the apprentice the legal right to comprehensive training. The DATSCH, now renamed the *Reich* Institute for Vocational Training in Commerce and Industry in 1939, and thus a government institute, managed to develop almost 1,000 training regulations by the end of the Second World War (Münch, 1991:34). Thus under the regime of Socialist Nationalism, the status of vocational training was enhanced markedly, and, additionally, both the structure and the quality of the training system improved through state regulatory measures. On the other hand, secondary and tertiary education in the same period underwent relatively little change, and has even be labelled by some as a 'pedagogically sterile period' (cf. Lawson, 1965).

EDUCATION AND TRAINING REFORMS IN THE FRG: 1950-1970

The 1950s were a period characterised as the German '*Wirtschaftswunder*', of which the doubling of the income per capita between 1950 and 1955 and the rise of the gross national product in 1950 to the pre-war level are but two examples (Ardagh, 1988:13). Nonetheless, it should be mentioned that Germany's economic recovery was only realised through a 'happy combination of several identifiable factors' (*ibid*). One such factor was the outbreak of the Korean War in June 1950, from which the Republic benefited considerably in terms of foreign trade, while another was the creation in 1958 of the European Common Market which gave a huge impetus to the nation's export trade. In addition to these aspects the impact of the currency reforms and foreign financial help provided by the Marshall Plan, which were initiated in 1948, provided a platform for successful economic policies based on free market principles, which saw not only the unemployment level in 1959 reduced to 2,5%, but also gave Germany a leading industrial and commercial position in western Europe as the leading exporter of manufactured goods in 1958 (Berghahn, 1982; Franke, 1992:16). Further, in rebuilding the nation it was the German approach to work, with its focus on thoroughness and craftsmanship and the federal government's general policy aim to strive for continuity and security which were indispensable for West Germany's economic accomplishments. Chancellor Adenauer's policy of stabilisation ('*keine Experimente*') provided a strong and necessary base for achieving both economic growth and a stable social climate.

The success of his social policy can be measured by the facts that serious social conflicts were non-existent while German voters generally endorsed the policies of the federal government, which occurred at a time when the patterns of distribution of employment changed quite

significantly because of industrial developments (*cf.* Sontheimer, 1995). In this period, an increase occurred in the proportion of the population employed in industrial production while the proportion engaged in agriculture decreased. Although these changes were to have ramifications for the structure, content and provision of education, there was an absence of political willingness to reform education. Consequently, the traditional German hierarchical structure of education remained essentially the same, the primary and secondary school systems having been reconstructed in accordance with the organisational structures which prevailed in the Weimar Republic and the *Gymnasium* catered for a minority of the secondary school students. These structures, and their supporting educational ideology, were maintained by means of student selection into the different streams of secondary school on the basis of aptitude and social background (Max Planck Institute for Human Development and Education, 1983). No national policies for the improvement of the vocational training system were being considered either, although it was realised that in a country like Germany, which has only a few natural resources the production and continuous improvement of quality export products is of central importance to economic success, for which vocational training holds the key to achievement.

This awareness of how important vocational training and education were for the country's economic prosperity was raised in 1952 when G.W.Ware, who was the adviser on German vocational education in the Office of the United States High Commissioner for Germany, stated that vocational education was essentially a part of the German economic system rather than its education system. This opened an important debate in Germany as to who ought to have responsibility in this field, and revealed the existence of tensions between free market forces and the need

for state regulations (Taylor, 1981; Stratmann and Schlösser, 1990). According to the DIHT, the Federal Ministry of Economics was to be given administrative responsibility for vocational training on the basis that it was the principal task of industry to provide on-the-job training. The German Trade Unions Association (DGB), on the other hand, claimed that vocational training was a social measure which consequently had to be administered by the Ministry of Labour and Social Administration. The employers' position was strongly supported by the then Federal Minister of Economics, Ludwig Erhard, who, among others, realised that the economic and social well-being of the Republic depended on the nation's economic performance (cf. Taylor, 1981). He asserted that 'only under a free market could an individual find true freedom' (Watson, 1994:231). In order to achieve this aim, the co-operation of the social partners was required for which reason the Co-determination Law of 1951 was enacted. This Act, which provided a means for labour and management to co-operate on a consensus basis, was appraised by Berghahn (1982:206) as falling 'short by a long way of the original ideas on economic democracy and equal participation of capital and labour as enunciated in the early post-war years'.

At this time of social and economic restoration, election data showed that although the voters were not interested in far-reaching educational reforms, there was a widespread concern that 'school chaos' was fast approaching (Anweiler *et al.*, 1990:17). The politicians took heed of these findings. In the Dusseldorf Agreement of 1955 (4), the prime ministers of the *Länder* endorsed the tripartite secondary school structure of the *Volksschule*, *Mittelschule*, and *Gymnasium*, as forming the basic structure across all *Länder*, a decision which contributed towards a federal-oriented education policy (Anweiler *et al.*, 1990; Arbeitsgruppe, 1994:179). It was also agreed that the *Mittelschule*, an intermediate level secondary

school type established in the Weimar Republic and renamed as the *Realschule* in 1964, should build on the primary level and would end with year 10. These measures, although significant in their own right, were nonetheless mainly of an administrative nature. Hearnden (1976:58), in typifying the post-war period until 1955, including the Dusseldorf Agreement, concluded that this has to be regarded as the 'administrative stage' of post-war education policy in the Federal Republic.

This era of relative stability was to change when the German Committee for the Education System (*Deutscher Ausschuss für das Erziehungs- und Bildungswesen*) was founded in 1953 - at the initiative of the Federal Ministry of Internal Affairs and the KMK - and was charged with the responsibility for making recommendations on the restructuring of public secondary education. Its 1959 Framework Plan (*Rahmenplan*) led to a national awareness of educational problems, and has to be regarded as one of the starting points of the great education reform debate in Germany. The main conclusion of the committee was that education was not keeping pace with radical changes which had occurred in society and politics over the past fifty years, a view Führ (1985:261,263) dissents from since he points that secondary school retention rates had increased in the 1950s as well as the role education had played in Germany's economic recovery. With regard to the apprenticeship system, the committee endorsed the existing dual organisational structure and lines of responsibility. It also proclaimed that it was the task of educational politics to ensure that vocational education and training were valued on an equal footing with university studies and cultural studies (Bohnenkamp, 1966:490,492). Such proposals disappointed since the essence of the traditional German system remained unchanged (Lawson, 1965:159).

An historical event in the development of vocational training in Germany was the committee's use of the term 'dual system' (in its 1964

publication '*Gutachten über das Erziehungs- und Bildungswesen*') to describe the principle of concurrent education at a vocational school and in-company training (Arnold and Münch, 1994:11; Kutscha, 1990:290). At a general level, this concept reflects the fact that young people concurrently receive training on-the-job and theoretical instruction at a part-time vocational school on a weekly ratio of 3-4:1-2 days respectively, and therefore are both students and apprentices at the same time. The training period lasts between two and three-and-a-half years depending on the training occupation, while training places are provided for occupations in all sectors of the economy. In 1965 the committee of experts was abolished for failing to change the tripartite education system and also because the committee was not held accountable to either the government or a minister as it was created as an independent non-government agency (*cf.* Horney *et al.*, 1970; Roth, 1975). Despite these criticisms, some of the recommendations made by the committee in the Framework Plan and in its other publications would be used by policy makers in later years (Horney, 1970:538).

By the beginning of the 1960s the structure of the German school system had become well established (see Figure 6.1 below). Compulsory education started at the age of 6 years for all children, and upon completion of the four-year primary school (*Grundschule*) students were selected on the basis of their aptitude into one of the three different types of secondary school, which are vertically ranked and organisationally separated, but *in toto* form the tripartite secondary school system. Most students completed the *Volksschule* (since 1964 the *Hauptschule*) after four years of study, thereby completing their compulsory schooling. Only a small number of students transferred directly from the primary school to the *Gymnasium*, the latter conferring upon the student after six years an

FIGURE 6.1

THE STRUCTURE OF THE GERMAN EDUCATION SYSTEM

Source: Münch, 1991: 28

intermediate certificate and after the passing of final examinations in year 9 the *Abitur* certificate, which gave access to university study. The *Mittelschule* (renamed in 1964 the *Realschule*) offered a six-year programme and conferred an intermediate secondary school leaving certificate. The majority of the students thus entered the work force or commenced vocational training after attending the *Volksschule* for eight or nine years, or the *Realschule* or *Gymnasium* for ten years. The number of students completing the *Abitur* after 13 years of school, however, was only very small, e.g. in 1965 approximately 15% of all 13 year old students attended the *Gymnasium*, while in the same year only 7.5% of the relevant age group obtained the *Abitur*. Only ten per cent of the students in year 10 came from working class families. These factors give a clear indication as to the selectivity of this type of school (Max Planck Institute for Human Development and Education, 1983:213).

In the course of the 1960s the education debate intensified as education attracted criticism from both inside and outside the country, and this heavily influenced the direction of the Federal Republic's education policy. At the 1961 OECD Washington Conference the view was expressed that the German education sector was in need of expansion (Weiss, 1991:9), a dictum which reverberated throughout Picht's book The German Educational Catastrophe, in which he asserted that in comparison with other industrialised nations Germany had an underdeveloped education system that had failed to produce enough highly qualified manpower to secure future economic prosperity. Picht proclaimed that for the Federal Republic to maintain its economic competitiveness the number of *Abiturienten* had to be doubled, a situation which, in his view, required radical measures. He argued the case, therefore, for both educational expansion and planning and for the federal government to assume greater

responsibility over education matters despite its limited legislative authority in this field (Picht, 1964:57). The need for a modern schooling system, however, was not only infused by economic arguments, but was also a reaction to both demographic developments and a belief particularly held by academics that it ought to be based on the principle of equality of opportunity (Arbeitsgruppe, 1994).

Dahrendorf (1965:25), for example, advocated that 'education was a civil right' and to achieve this, he argued, the federal government had to engage in active and constructive education policy. Both Dahrendorf and Picht, as well as other critics, were convinced that the German education system, with its tripartite structure, a strong division between vocational and general education and a qualifications-based award system, promoted inequality of educational opportunity and consequently had to be reformed. Curriculum content became also the subject of political and social discussion in the latter part of the 1960s when the traditional curriculum plans were criticised for failing to prepare students for modern life. Saul Robinsohn's publication Bildungsreform als Revision des Curriculum was influential in this respect as it saw the teacher as the person primarily responsible for the successful implementation of the curriculum reform (Arbeitsgruppe, 1994:263).

The resistance to educational change was a characteristic of the German school system, particularly in the first half of the century (cf. Lawson, 1965). In the 1960s a number of reform attempts were undertaken in order to modernise the German education system, some of which were quite significant, especially in the vocational training area. The catchphrase '*Aufstieg durch Bildung*' (advancement through education) was frequently used in the early sixties, at, for example, SPD, trade union and education conferences, to emphasise the need for educational expansion in West Germany - and in anticipation of credential inflation (von Friedeburg,

1992:366). On the other hand, arguments were used by some against change. The main one was that 'any radical reform would lead to an intolerable loss of quality', a stance which was shared among a representative cross-section of society, such as teachers, parents, and some academics (Robinsohn and Kuhlmann, 1967:323). Springer (1965:11) saw 1964, however, as marking a period of increased awareness on the part of both the public and the political parties that Germany needed to move away from an idealistic education approach (*Bildungsideal*) to a research-based education policy (*Bildungspolitik*). According to her, it was the combined factors of public disinterest in matters of education and a *status quo*-oriented politics of interest groups which had been causing the delay of education reforms and had to be overcome.

A more liberal education policy was adopted by anticipating a growing discontent as regards education by the public, academics, administrators and students. It was the latter group which demanded co-determination rights in education in particular and a further democratisation of German society in general. As a consequence, the federal government adopted a policy attempting to improve the transference between vocational and general education by ensuring that possibilities were made available for those having completed vocational education to pursue studies in the higher education sector, *i.e.* the so-called *Zweiter Bildungsweg* ('second education path') (cf. Führ, 1985). In retrospect and in quantitative terms, this pathway could not be considered successful as only 2-3% of those entrants to tertiary level education gained admission after having completed vocational training.

Robinsohn and Kuhlmann (1967:323) claimed that these innovations were tolerated only for experimental purposes and the education system in its entirety resisted change. Weiler (1989:299) concurs with these views and asserts that experimentation was used in West Germany as 'a strategy for

introducing reform under conditions of major conflict or anticipated conflict'. The establishment of the comprehensive *Gesamtschule* is an example of such a measure. In considering the validity of these views for the education and training policies in the subsequent periods, a description and analysis of the main reforms now follows.

Although there had been some indications of a move towards a research-based *Bildungspolitik* in Germany in the latter half of the 1950s, research conducted by Friedrich Edding in the early sixties into manpower needs for the education sector was particularly influential in changing the direction in education policy (5). An OECD review of Germany's educational policies in 1972 compounded the negative perception held by many in Germany on the state of affairs of the education sector, when it concluded that '...the actual performance to date of the German's education system must be judged as backward' (OECD, 1972:49).

The above factors were indicative of a perceived need for more effective educational planning and had led in the winter of 1964-65 to the taking of significant steps at the federal level to overcome national problems in education. Firstly, the 1964 Hamburg Agreement, consented to by the prime-ministers of the *Länder*, included the extension of compulsory schooling to 9 years, the introduction of measures to decrease teacher shortages - a need which had been signalled already by both Edding and Picht - and, importantly, that each *Land* was to be given the mandate to implement non-tripartite school structures as it saw fit (Arbeitsgruppe, 1994:179; Springer, 1965). This lifting of the ban by the federal government and the KMK on secondary school experiments preluded a reform phase in German education. Furthermore, the term '*Hauptschule*' was introduced which was to transform the upper level of the *Volksschule* into a type of secondary school equal in ranking with the

Realschule and the *Gymnasium*, allowing its graduates to pursue study at tertiary level. Subsequently, this measure purposefully undermined the élite position of the *Gymnasium*, while on the other hand the *Hauptschule* was intended to become the main type of secondary school in West Germany (Arbeitsgruppe, 1994).

Secondly, the German Education Council (*Bildungsrat*) was established in 1965 on the joint initiative of the federal state and the *Länder*, with the task of formulating long-term education aims including the implementation of policies relating to 'the expansion, structure and financial needs of educational institutions' (Springer, 1965:14). The council was to work subsequently in close collaboration with the Science Council (*Wissenschaftsrat*) which was founded two years later with similar functions for the science and higher education sectors. In the same period, under the auspices, and with financial support, of the federal and the *Länder* governments, the Max Planck Institute for Human Development and Education was established in Berlin. The establishment of these organisations clearly signalled the federal government's intention to realise increased federal participation in educational planning for the advancement of both effective and responsive education and training systems given their anticipated contributions to the Republic's economic, social and fiscal policies.

The events of the 1960s, some of which have been described above, had a catalytic effect on the development of education and training reform, but it would be a mistake not to recognise the general relationship between education and training and other social sectors. Due to social, demographic, and technological developments - and the emergence of new production concepts - the nature of work and the ways in which it was organised changed considerably in this decade. The possible ramifications

of these changes for education and training were widely discussed in the so-called "automation debates". One direct consequence of this was that the existing training and qualification requirements and structures were subject to appraisal and adjustment, an issue on which there were diverging political viewpoints.

The debate basically concentrated on the issue of whether the German apprenticeship system was able to keep pace with the occurrence of increasing rationalisation and mechanisation in industry, a change which was actively pursued by industry in order to offset a shortage of skilled labour. A second concern expressed was the relatively low number of technicians and engineers in training as compared, for example, with the Soviet Union (Taylor, 1981:161). Schelsky, an academic, approached the issue from a different perspective when he predicted that the modernisation process would see semi-skilled supervisors replace skilled workers in the industry and commerce sectors. The DIHT responded to this by asserting that the existing trade training system was adequately prepared to meet future challenges, but at the same time it acknowledged the value of and the need for further trade training to the industry (cf. Taylor, 1981). In the wake of the automation debates, political discussions on educational issues gained in importance, and this was to have a direct bearing on vocational education and training policies (Greinert, 1994a:361).

As a result of these discussions, political attention focussed on the development of the 'second educational pathway' in the vocational education sector while, concomitantly, was concerned with raising the standards of general education. With regard to the former, the KMK agreed in 1955 to set up *Berufsaufbauschulen*, schools which would offer advanced vocational education to apprentices for positions with responsibility in the industry. At the same time, the entry requirements for the *Gymnasium* were being relaxed in order to ensure that through greater

flexibility of access to higher level study and training the 'educational reserves' could be used to make up for the existing labour shortages in the employment market (Taylor, 1981).

Essential to an understanding of the development of vocational training policy is not only the question of whether training is an education or an employment matter, as clearly they are considered both in Germany (cf. Dauenhauer, 1981), but of greater importance is the role of the social partners and their respective spheres of influence (see also chapter 7). Already in the 1950s, the German Trade Unions' Association (DGB) was arguing strongly for a vocational training act to improve the standardisation and quality of training and to ensure they would be given co-responsibility in this field (cf. Horney *et al.*, 1970; Stratmann and Schlösser, 1990:63). They also wished to see a federal institute established to research vocational training in the face of economic and technological developments in the Federal Republic. The employers strongly opposed these propositions except the last, as they preferred to maintain the *status quo* since they viewed the trade unions' proposal to change the organisational structure of vocational training as being too 'generalistic, comprehensive, and perfectionistic' (Stratmann and Schlösser, 1990:149). Federal parliamentary opinion at that time was in favour, however, of regulatory measures. While employer representative bodies were pointing out that the State should not interfere in these matters, politicians made it clear that the federal government intended to replace the existing, largely employer-controlled vocational training arrangements, with a bureaucratic-centralist system if deemed necessary (*ibid*, p.147).

The educational policies of the political parties at that time differed considerably. The Socialist Democrat Party focussed in particular on administrative and structural changes in education. Thus, its manifestos

contained proposals for comprehensive education, which involved the integration of vocational and general education, as well as the improvement of equality of opportunity in education and training through the development of more flexible pathways. The SPD's position on trade training was that the State and the social partners were to be given equal responsibility, as it was seen as a public task. Therefore the party adopted a strategy to reduce the power of the industry in vocational education and to achieve proportional responsibility by introducing a draft bill into parliament in 1962. This was supported by the DGB, and ultimately led to the enactment of the 1969 Vocational Training Act (*Berufsbildungsgesetz*).

The political programmes of the conservative CDU/CSU, on the other hand, made it clear that no radical changes to the existing training system were considered desirable and that public control over vocational training had to be kept to a minimum (Taylor, 1981:177-9). The policies on education and training of the Free Democrats (FDP) were neither very innovative nor articulate; this was a reflection of its coalition status in the German political party system.

A few months prior to the enactment of the 1969 Vocational Training Act, the German Education Council had released a report entitled "*Zur Verbesserung der Lehrlingsausbildung*", in which it made comprehensive recommendations for the improvement of vocational training. The commission stated that over the years the reform of the general education system and the university sector had clearly taken political precedence over trade training restructuring. The commission remained convinced that trade training had to be seen as an investment in the future affluence of Germany, and therefore was a public task (cf. Deutscher Bildungsrat, 1969). Consequently, it put forward the recommendation that public participation in vocational training should be increased in order to ensure

that the interests of both the individual and the state were safeguarded. In addition, the commission was of the opinion that general and vocational education had to be aligned further, and that there was a need for both the planning of training and for pedagogically qualified trainers in industry (*ibid*, p.25). Another aim was that apprentices should achieve vocational maturity on completion of their training (*berufliche Mündigkeit*), since vocational competence (*berufliche Tüchtigkeit*), the traditional training objective, was no longer deemed sufficient for modern society (*cf.* Koch and Reuling, 1994). According to Lipsmeier (1969:241), the council's report was important in the sense that vocational training now became a publicly debated issue.

The reasons for introducing the Vocational Training Act were manifold. The Act's intention was to improve upon previous arrangements, which now formed a deficient and outmoded legal basis for vocational training. In addressing these shortcomings, the Act aimed to improve the standard of training by the introduction of more rigid quality control measures; to ensure that employers and trade unions were equally represented in matters relating to vocational training, and to improve the educational opportunities of the individual, while, at the same time, ensuring that the needs of the economy for adaptable and efficient tradespeople were being met by means of an expanded and more flexible dual system. It also set out to foster cooperation between vocational schools and industry, which so far had been perceived as problematic (*cf.* DIHT, 1992). Lastly, and importantly, the Act provided the basis for an interlocking of the industry training and public education systems within a 'general and comprehensive educational concept' (Horney *et al.*, 1970:328).

Despite the differing education and training policies of the major role players, as described above, a high degree of consensus appeared to exist between the social partners, the federal state, and the informed public

in that practices in vocational education and training had to be improved rather urgently as, for example, there was no uniformity of training standards across industry and commerce sectors. Furthermore, it was alleged that apprentices were used as cheap labour; this was a contentious issue as those generations growing up in West Germany's social welfare state were accustomed to their having social and cultural rights (*cf.* Taylor, 1981). Instrumental to the successful passing of the legislation was the ascension to power of the 'Grand Coalition' (1966-1969) of the CDU/CSU and the SPD, which took decisions on a consensus principle, and provided the right political climate for legislative action (Anweiler *et al.*, 1992:22). The position of the coalition partners on education was made unequivocally clear by *Bundeskanzler* Willy Brandt who stated that 'education, training, science and research are foremost among the reforms we intend to undertake' (OECD, 1972:34). Critics, on the other hand, have pointed out that the consensus approach only resulted in minimalist achievements (Arnold and Münch, 1994).

FROM POST-REFORM TO THE COLLAPSE OF THE GDR: 1970-1990

The election of the SPD/FDP government in 1969 ushered in a new era in German politics as, for the first time in the existence of the Federal Republic of Germany, the Social Democrats, in coalition with the Free Democrats, took over power from the CDU. At the beginning of the social-liberal governance period (1969-1982) a strong-minded Willy Brandt promised to implement a wide array of reforms in order to further the democratisation of West Germany: '*Wir wollen mehr Demokratie wagen*' (Sontheimer, 1995:69). An example of such a policy were the reconciliatory agreements signed between the Republic and some of the Eastern Bloc countries in 1970-1972 as part of his '*Ostpolitik*'.

In the education sector, the first important change introduced by the new government was the establishment of a Federal Ministry of Education and Science which, among other functions, would have policy and coordination responsibilities for vocational education (Der Bundesminister für Bildung und Wissenschaft, 1979). Consequently, the Ministry's 1970 Education Report was significant since it was seen as the federal government's first contribution to a common policy it hoped to achieve in collaboration with the *Länder*, as permitted under a recently amended Basic Law (Taylor, 1981:224). The government's prime objective was to ensure that future changes to education and training would be based on the establishment of a flexible, efficient and democratic system. The report stated the government's intent to reform all levels of education, and was based largely on the recommendations of the Education Council and the Science Council (OECD, 1972:38). The main reforms advocated were universal pre-school education for three- and four year old children and an endorsement of the concept of integrated comprehensive schooling at both secondary and tertiary level (*ibid*). The latter signalled the government's policy to maximise access to education and to reduce existing inequalities of educational opportunities, which was in accordance with the SPD/FDP's Coalition government's policy aim to base its reforms on the demands for social justice. The accomplishment of such an aim was, in the view of the federal government, to be measured against the establishment of a comprehensive national system of education.

To aid the implementation of its policies the federal government founded the Federation-*Länder* Commission for Educational Planning (*Bund-Länder-Kommission für Bildungsplanung*; BLK) in 1970. This body's role *i.e.* to play an active role in federal education policy, was to be diminished as it had to depend on co-operation between the federal state and the *Länder*, in order to achieve its own goals, at a time of increased

political conflict over educational issues (Anweiler *et al.*, 1990). The issue causing considerable debate in Germany was whether educational reform ought to be based on, and derive its legitimation from, a human capital-dominated perspective, or whether it should be built on the basis of individual empowerment and democratisation (Weishaupt *et al.*, 1988:29). The Prokla School (see chapter 1) in particular criticised the human capital approach to education stressing that the State had 'to function non-capitalistically in a capitalist society', although it acknowledged the necessary role of education for the State to reproduce collective capital (Broady, 1981:153).

Thus the 1960s and the early 1970s saw, in general terms, education policy mainly emphasising the structural and quantitative aspects of training and education, a focus which would gradually shift to an interest in qualitative aspects from the mid-1970s onwards (Koch and Reuling, 1994:16). The Structural Plan (*Strukturplan*) of the German Education Council, which was released in 1970, represented both foci. This plan, aimed at further development of the German education system, was based on three principles, *i.e.* all teaching and learning were henceforth to be scientifically oriented, theoretical and practical learning were considered to be of an equal standing while the predominance of the selection function of education had to be changed through measures of increased demands and integration (Deutscher Bildungsrat, 1970). Central to the Structural Plan were the council's aims to enhance educational opportunities for secondary school students and to promote lifelong learning. In order to achieve this, the plan recommended that the aims of individualised learning and differentiated education paths should be realised in order to improve the accessibility and transparency of the education system. No education path, it proclaimed, was to become a dead end (*ibid*, pp.31,38). However,

according to Taylor (1981:223-4; cf. Kutscha, 1990), the commission was aware that the pre-eminent position of on-the-job training in the dual system would allow only limited transference between the education and the training systems. The report stressed also that the senior secondary school (*Sekundarstufe II*) was to be considered a differentiated unity, comprising different education streams which were all subject to the same policy aims, organisational principles, and teaching approach (*ibid*, p.161).

With regard to vocational education and training, the council particularly recommended a stronger theoretical basis and orientation, a standardisation of examination prescriptions as well as further specialised training to be built upon a uniform foundation stage. This institution-based basic vocational training year (*Berufsgrundbildungsjahr*) has always been a contentious vocational training policy issue in Germany. It was incorporated in the vocational training system as the first year of apprenticeship with the purpose of providing institutional learning opportunities at a time when industry was unable to offer sufficient training places for apprentices. This measure was also directed towards reducing youth unemployment (Lauterbach, n.d.). Employer-led bodies have objected to this because it was seen as a way for the State to assume greater control over vocational training (Greinert, 1984; Koch and Reuling, 1994). On the other hand, due to technological developments the imparting of cognitive knowledge became more important in a person's training and this, according to Stratmann (1975:829), could only result in increased institutional learning.

The rationale for the foundation year was that all students leaving junior secondary school would be required to complete one year of vocational studies as year 11 of compulsory schooling and this would allow them to make their career decisions much easier than before as well as smooth the transition to further education. The council also

acknowledged the need for, and the role of, theoretical research into occupations and training, which in Germany is largely the domain of the university discipline of occupational pedagogics (*Berufspädagogik*). The proposals put forward in the Structural Plan were not immediately adopted as policy by federal government but did significantly influence public and parliamentary opinion (Schaub and Zenke, 1995:335).

In 1973 the BLK published its 'Comprehensive Education Development Plan' (*Bildungsgesamtplan*) for the period 1973-1985, which included a programme for the structural development of the education system and related funding issues. In the sphere of on-the-job training it recommended increased public control over the examination system, the raising of instructor standards, and the accreditation of training providers. Furthermore, the committee introduced the concept of a two-tier initial trade training system, consisting of basic level training in a trade field (*Berufsgrundschuljahr*), followed by specialist training. In order to remedy a situation in which there was a shortage of skilled tradespeople, the federal and the *Länder* governments announced a policy to reduce the number of untrained youth from 9.1% (230,000) of all pupils in 1970 to 2.5% in 1985 (Taylor, 1981:231). Of considerable importance in the *Bildungsgesamtplan* was the proposal to provide pathways for apprentices to progress to higher education courses through a combination of vocational and general education courses (e.g. the *Kollegschaften* (6) in North Rhine-Westphalia, and the *Abendgymnasien* and *Fachschulen*), an idea which was an alternative to the already existing 'second educational path', as discussed earlier (*ibid*, pp.231-2). This has proven, up to the present time, to be an exemplar of relatively successful integration of vocational and general education.

Although the report's aim was laudable in that it sought to reform the education and training systems and expand education on the basis of

projected demands for education at all levels, it became better known for its lack of quality and limited practical value. In the view of the SPD, it failed to produce acceptable policy proposals about the integration of vocational and general education. The report was also criticised for neglecting the importance of the labour market, for its methodological flaws as well as for the fact that even at the beginning of the 1980s no consensus had been reached on the implementation of the report's recommendations (Max Planck Institute for Human Development and Education, 1979). Hence the report was never entirely accepted by the *Länder* (Weiss and Weishaupt, 1991:80; cf. Weishaupt *et al.*, 1988).

Evidence of the already indicated shift to quality aspects of education in the 1970s can be found in the 'Marking Points' Report (*Markierungspunkte*) issued by the Federal Minister of Education and Science in 1973. This report stated explicitly that it was the government's intention to ensure that not only were state-prescribed quality standards in vocational education and training met (such as the accreditation of providers and assessors, and including curriculum reform) and an adequate number of training places secured, but also that the State was to have a role of oversight and responsibility in this field (Der Bundesminister für Bildung und Wissenschaft, 1979:90). Furthermore, in achieving this it considered the Vocational Training Act of 1969 as inadequate and thus legislative amendment was required. The Marking Points Report, on which the proposed vocational training law would be based, endorsed the basic premises of the Comprehensive Education Plan. Accordingly, it recommended that education and training be put on an equal footing, that comprehensive schools be introduced to redress existing inequalities of educational opportunity, that on-the-job training

become an integral part of *Sekundarstufe II*, and for the basic vocational training year to be introduced, among other measures (*ibid*, pp.91-95).

Responding to this document, the DIHT rejected any attempts at centralised education planning being applied to industry training since this would have a detrimental effect on its economic and social success (DIHT, 1979:113). In keeping with this stance, the DIHT made its position clear that further state intervention was not acceptable and that it did not wish to relinquish any of its powers of control and administration over training. The DGB, on the other hand, not only approved the State taking responsibility for quality standards but wanted the federal ministry to be given a more comprehensive mandate (DGB, 1979:128). The unions also wanted the replacement of the selective tripartite secondary school by integrated comprehensive schools, as the former, in their view, had failed to provide equality of opportunity for all.

The controversial nature of the Marking Points Report was particularly evident from the federal government's view on how it wished to restructure the organisation and administration of training. To accomplish reform, the government regarded the integration of vocational and general education as paramount to achieving its policy aim of increased equality of opportunity. For that purpose it sought to strengthen the role of the federal state in education and training. Under the new law a *Bundesamt für Berufsbildung* (Federal Office for Vocational Training) was to be established, which would incorporate the *Bundesausschuss für Berufsbildung* (Federal Committee for Vocational Training) and the *Bundesinstitut für Berufsbildungsforschung* (Federal Institute for Vocational Training Research; BBF), both of which had been set up under the 1969 Vocational Training Act. The latter institution was the predecessor of the *Bundesinstitut für Berufsbildung* (Federal Institute for Vocational Training; BiBB). The proposed representation of the *Länder* on the Board of the BBF

would mean a shift in responsibility for vocational education and training in favour of the *Länder*. This would mean that their competence would be extended from public school control to co-responsibility for policy formulation for all aspects of federal vocational education, including on-the-job training, a move which would encroach on the monopoly over trade training so far enjoyed by the industry.

The period from 1965 to 1973 is considered by many to be the 'boom period' in German education policy formulation (Anweiler *et al.*, 1990). Two of the highlights of the period were the introduction of the Vocational Training Act and the government's Marking Points Report, both of which provoked considerable reaction. The Act, as mentioned earlier, had been perceived as being the result of a minimalist compromise. Martin Baethge pointed out that the reforms demonstrated the dominance of the economy over politics, and that they never had a chance of succeeding due to the absence of adequate funding mechanisms to support their implementation. In his view, the reform was intended to appease the employers (Baethge, 1979:197-201; Lipsmeier, 1983:12). The policy targets in the Marking Points report, he claimed, could not be realised due to employer resistance, as they had tactically used the economic downturn caused by the oil crisis as a reason not only to reduce the number of training places but also to oppose any reform attempts (Baethge, 1983:149). The trade unions, despite having obtained legal co-responsibility for vocational training, were critical of the legislation since they felt that it did not produce the necessary quality reform in vocational training (Görs, 1975:743). Criticism was also expressed of the fact that the Chambers remained in control of apprentice training, and that the Act did not address the funding issues. Görs (*ibid*, p.748) criticised the Act for leaving terms such as 'vocational training' and 'further training' undefined. On the other hand, the Marking Points gained

the DGB's general approval since its recommendations would give the State responsibility for accreditation, thereby reducing the influence of industry (Semmler, 1983:70). In the main, the employer representative bodies endorsed the Act because not only did it ensure the continuation of the dual system but it also provided a basis for lifelong learning, since further training and retraining were included in its regulatory framework. The employer bodies, however, believed that the Act was over-prescriptive and would decrease economic efficiency (Herbst, 1979:51,54).

The funding issue which had not been resolved by either the Marking Points Report or the Vocational Training Act, was finally addressed in 1974 by an expert committee chaired by Edding. They recommended the introduction of a levy system, which was to become a centre piece of an amended vocational training act. This proposed funding mechanism was vehemently opposed by the employer bodies, who claimed that it would not result in an improvement of the quality of vocational training. They maintained that this could best be achieved through an improved performance of the part-time vocational schools under *Länder* control (Görs, 1975; Taylor, 1981:268; von Friedeburg, 1992). While the new legislation, the Training Promotion Act (*Ausbildungsförderungsgesetz*), was finally passed in 1976 it was considered illegal by the Federal Constitutional Court in 1980.

In the 1970s the lack of available training places had become a major problem in Germany, but was resolved by the efforts of the private sector to increase its training capacity which were also designed to ward off the possibility of state intervention in the organisation and financing of vocational training (von Friedeburg, 1992:433). Although the period 1965-1974 can be described as characteristic of the federal government's initiatives in education and training and educational policies, the scope

and direction of its measures were notably determined by the nation's economic performance and needs. Two events may serve as a case in point.

Firstly, the German Education Council published, one year prior to its demise, a report in which it put forward a proposal to reform the senior secondary school by introducing far-reaching reform concepts which sought to achieve the federal government's policy aim of bringing general and vocational learning closer together in terms of standing, organisation, and curriculum (Deutscher Bildungsrat, 1974). This publication provoked many reactions and submissions and, consequently, implementation was delayed (*cf.* Greinert, 1990). Clearly, an opportunity was lost to reform education in Germany, which may be attributed partly to the slow pace of educational development so characteristic of the Federal Republic (Phillips, 1995:37).

The second event was the economic recession in the second half of the 1970s, which was triggered by the international oil crises, and had a considerable effect on education in that reform was removed from the priority list of the federal government led by Chancellor Helmut Schmidt (1974 to 1982). The emphasis now shifted to whether a sufficient number of apprenticeships were being made available by employers in order to support a struggling economy. This focus prevailed not only among the federal government and the social partners, but also found acceptance among some academics (*cf.* Greinert, 1990). The problems facing the dual system thus continued until the mid-1980s, a prolongation which can be traced to two related factors.

First, the impact of the second oil crisis of the early 1980s resulted in employers rationalising their business operations by reducing staffing levels and training activities, which led to a depressed youth labour market. Secondly, and concurrently, the post-war 'baby-boom' generation was entering the labour market in great numbers, factors which in

combination placed heavy demands on already stretched employment and training systems. The dual system proved to be capable of overcoming these substantial problems, which happened without a reform of the vocational training system (Stratmann and Schlösser, 1990). Table 6.1 provides data on the quantitative development of the German training model. In this context it is important to mention here that approximately 70% of all students (or around one million youths) who have completed full-time compulsory schooling at junior secondary level (*Sekundarstufe I*) continue to concurrently study and train for a recognised training occupation in the dual system of vocational education and training (The Federal Minister for Education and Science, 1992:58; Pütz, 1996:4).

Thus a situation now prevailed in which both the further development of reforms and the quality of training were considered to be of secondary importance (*ibid*; cf. Offe, 1975). This, and the unsuccessful and/or uncompleted education and training reforms described above, in combination with a preoccupation displayed by the federal government, industry and the commerce sectors regarding the quantitative development of the training system plus a growing scepticism about the efficiency of long-term educational planning, indicated the existence in society of a legitimisation crisis (Anweiler *et al.*, 1990; Offe, 1975; Kutscha, 1990). Educational policy, which in the period 1965-1974 had mainly been driven by the federal government, now shifted back into the realm of the *Länder*, who thereby regained control over educational matters (Anweiler *et al.*, 1990:24; de Vuyst, 1984:381).

In the first half of the 1980s vocational training policy discussions remained primarily focussed on the provision of an adequate number of training places. In the education policy area, however, a paradigm shift became clearly noticeable in which 'pluralism, decentralisation, school autonomy and parent empowerment' were to become the new guiding

TABLE 6.1

TRAINEES ACCORDING TO TRAINING SECTORS IN THE WEST GERMAN LÄNDER BETWEEN 1960 AND 1990, (000s)						
	Industry/ Commerce	Crafts	Free Profess.	Public Sector	Agricult.	Maritime
1960	743.1	446.6	20.4	19.4	36.3	7.0
1965	752.4	468.0	45.5	23.7	37.3	5.0
1970	724.9	419.5	56.4	20.2	38.1	2.4
1975	634.0	504.7	103.2	46.0	33.0	0.9
1977	643.8	556.1	103.4	44.8	41.0	1.0
1979	748.4	676.2	110.4	53.8	46.6	1.0
1981	771.3	673.6	123.6	54.3	46.5	0.9
1983	791.9	674.9	130.2	63.7	52.0	0.8
1985	874.6	687.5	131.5	72.9	53.4	1.1
1987	865.9	617.8	123.1	71.7	44.6	0.8
1989	783.3	532.5	130.0	62.2	33.8	0.5
1990	756.4	486.9	130.2	63.5	29.7	0.4

Source: BMBF, 1994:118

principles. Weiss (1993:307) argues that this shift was not the result of a diagnosed 'quality crisis' that could be overcome by applying market elements to education, but was foremost an attempt to cope with dwindling political legitimation and to reduce educational policy conflicts. The education ministers of the *Länder* agreed in 1982 to further improve the quality of education and to ensure the necessary provision of education and training, which was in line with and in support of federal government goals. In particular they agreed that the requirements for on-the-job training had to be clearly formulated; that special measures had to be introduced for those young people not completing their schooling and that the education system had to be brought more in line with the employment

system through measures directed at easing the transition from school to work. In contrast, the BLK's Second Comprehensive Education Development Plan (1980-1990) was not endorsed by either the federal government nor the *Länder* (Weiss and Weishaupt, 1991:81-87).

While some of the German legitimisation theorists, such as Habermas, Offe, Weiler and Baethge, were strongly critical of the dominance of an industry-driven education and training system, others have recognised the modernisation and qualitative furtherance of vocational training in the so-called 'non-reform' period of the 1970s-1980s (Schlösser, 1990). Lipsmeier (1983:11) summarised these qualitative achievements as follows: the introduction of measures to improve the training of industry trainers; a differentiation in training providers, including the development of inter-company training centres; the reform of and reduction in the number of training occupations; the harmonisation of training prescriptions and vocational school curricula; the introduction of the basic vocational training year; the development of full-time vocational schools; and lastly, the recognition of the importance of vocational training research. With regard to the latter, the Federal Institute for Vocational Training (BiBB) was established under the 1981 Vocational Training Promotion Act (*Berufsbildungsförderungsgesetz*), in which the legal status, the tasks and the organisation of the institute were defined. Its main tasks were to conduct research and to produce a yearly vocational training report for the federal government (*cf.* BMBW, 1994c and see chapter 7). The Act essentially duplicated the scope and content of the invalidated 1976 Training Promotion Act, but left the financing of vocational training unregulated.

In 1980, the effect of social, demographic and technological changes on the development of the German tripartite secondary school system

became quite pronounced. Whereas the *Hauptschule* had been intended at the beginning of the period of educational expansion to become the main school for secondary school students, over time it became ranked as the least desirable type of secondary school. Concurrently, a trend could be observed in a significant increase in the number of enrolments in the *Realschule* and the *Gymnasium* (see table 6.2). While a similar trend could be observed also in the higher education sector. Whereas in 1960 the total number of tertiary level students amounted to nearly 300,000, by 1980 this number had increased to 1 million, and in 1986 around 1.4 million students were enrolled in higher education institutions (Lauterbach, n.d., p.35).

One consequence of these developments is that the *Hauptschule* is now seen as the 'problem child' of the tripartite secondary school system, mainly because the dwindling number of new entrants, but in quantitative terms it is still the 'main' type of secondary school. Its 1989 position strongly contrasts with the one it had in 1952 when 80% of the the relevant

TABLE 6.2

Year	Pupils (000s)			
	Grund/ Hauptschule	Realschule	Gymnasium	Gesamtschule
1960	5,216.6	446.8	853.8	
1965	5,565.8	589.9	957.9	
1970	6,347.5	885.8	1,379.5	
1971				61.5
1975	6,425.1	1,174.1	1,863.5	165.8
1980	5,044.4	1,351.1	2,119.0	220.3
1985	3,827.9	1,049.0	1,748.9	217.5
1989	3,703.8	857.2	1,545.6	273.0

Source: Anweiler *et al.*, 1990:538

age group entered this type of school (*ibid*, p.165). The *Realschule* certificate, on the other hand, has become more useful in the employment market as a result of economic developments, while simultaneously more educational opportunities have been made available to its holders over the years. For example, graduates of the ten grade *Realschule* may transfer to the upper level of the *Gymnasium* or to the full-time vocational school, options which both open the possibility for pursuing tertiary level studies at a later stage. Thus the function and the status of the *Realschule* has altered over time and its certificate is regarded now an 'average' qualification for both employment and further study purposes (*ibid*, p.189).

Reasons for the disproportionate expansion of the *Realschule* derive from the ambitions of the German lower middle class to improve their social status vis-à-vis other social groups at a time of growing prosperity through the attainment of higher levels of secondary schooling. As education expanded admission criteria for the *Gymnasium* have become less rigorous which, in turn, have resulted in this school becoming larger and also more heterogeneous in terms of the socio-economic background of its students. This, ultimately, resulted in the *Gymnasium* ceasing to be an élite school.

The fourth secondary route comprises two types of comprehensive schools, *i.e.* the co-operative and the experimental *Gesamtschule*. The former is predominantly found in the *Land* of Hesse, while the second type has been introduced mainly in the *Länder* of Berlin and North-Rhine Westphalia. The total number of comprehensive schools in the Federal Republic amounted to 542 in 1992 (Arbeitsgruppe, 1994:525). As table 6.2 (see below) shows this school type caters only for a relatively small proportion of the German secondary school population.

In 1982 a CDU/CSU/FDP coalition came to power and Helmut Kohl was elected as the Republic's new Chancellor. Under his leadership, social-liberalism was replaced by conservative politics. A key element in the new political climate was the federal government's commitment to provide favourable economic conditions for the commerce and industry sectors (Sontheimer, 1995:76). Against this background of Kohl's 'neo-liberal' politics, education was not regarded as a priority area by the government, and therefore the overall direction of federal education policy did not change significantly.

Kohl's conservative approach to education resulted in the government's announcement of the reduction of a number of experimental educational programmes while, concurrently, educational measures and labour market programmes were introduced to decrease rising unemployment levels (*cf.* Anweiler *et al.*, 1990). This rose to 2,1 million in 1983 and was only reduced in 1989 to 2,0 million but from 1984 the number of unemployed people under 25 years of age had dropped considerably due to the improved performance of the economy (Franke, 1992:20,23). As a direct result of the more favourable fiscal and economic conditions, employers were encouraged to make more training places available for apprentices, which in turn gave an incentive to the federal government and the social partners to re-focus on the further qualitative and structural development of the training system.

The emphasis this time, however, was not on organisational reform - as witnessed in the first half of the 1970s - but on a reform of 'content and methods' which was deemed necessary because of emerging new technologies and changing economic realities. In accordance with this shift, production processes, work organisation and qualifications were redesigned and updated (*cf.* Lane, 1990). In work situations and training

programmes, social, transferable and learning skills were gaining in importance in addition to the vocational competence required (*cf.* Alex, 1990). After some time, single occupation classifications in the dual system changed, and occupational clusters were restructured, while a trend towards service professions from production occupations was appearing (Greinert, 1994a; Huisinga, 1990).

Behaviour-oriented didactics and new learning methods were designed and tested in order to underpin a new approach to learning and teaching (Stratenwerth, 1990:281; Bunk and Zedler, 1986). This new pedagogical approach in Germany was based on the ideal of a skilled worker being able to independently plan, carry out and control his work.

This new ideal was based on the assumption that, due to technological and economic structural developments, many highly specialised, repetitive and externally monitored jobs will be replaced by jobs comprising a broad variety of tasks, which, in addition to comprehensive technical qualifications (7) will also require social qualifications. Key qualifications such as the capacity to assume responsibilities, to co-operate and to think in terms of global systems are expected to gain importance. The acquisition of a comprehensive professional competence is increasingly becoming a general objective both for in-company training and learning at school (Koch, 1994:123).

The metal and electrical trades in both the industry and craft sectors were instrumental in achieving this as they took the lead in modernising the organisation, structure and content of their training, based on the new pedagogical and organisational principles. The review of the training prescriptions for the metal occupations and the electrical trades had commenced in 1978 and 1981 respectively (IGM, 1987:15). With the passing of the new training ordinances by the federal economics minister in 1987, a new era in vocational education and training reform commenced. However, it remains to be seen whether these changes are able to produce

the desired outcomes. For this purpose, according to Greinert (1994a:371), the relationship between those sectors and the general education and the employment systems may need revisiting.

Continuing vocational education and training expanded significantly in Germany in the 1980s and was reflected in the fact that both the federal state and the Chambers introduced regulations for the certification of advanced vocational training courses, and increased participation rates (Lipsmeier, 1994:31). A general indication of this trend is that the total number of participants in this area increased from 409,324 in 1985 to 596,354 only two years later (Press and Information Office of the Federal Government, 1988) (8). The Federal Ministry of Education and Science promoted the furtherance of this sector in terms of institutional development and student participation through its 1987 '*Konzertierte Aktion Weiterbildung*' (KAW) programme (*ibid*, p.32). In 1990 the KAW working party, consisting of representatives of stakeholders in the field of vocational training, proposed to improve the continuing vocational training system through increasing transparency and quality as this was felt to be lacking (BMBW, 1991a:116). It should be mentioned here that the federal state and the *Länder* have, due to the subsidiarity principle, restricted influence in the continuing education area, in which employers in the industry and commerce sectors are the main providers. This means that state intervention is allowed in those situations in which set targets cannot be achieved by free market forces only. From the 1980s onwards an increasing number of companies started to provide continuing training, thereby establishing themselves as a 'learning place' (Alt *et al.*, 1993).

Whereas a trend can be discerned of companies and the chambers of commerce and industry, among other providers, expanding their provision of continuing vocational training courses, initial vocational training under the dual system is in crisis as a significant reduction can be

observed in the number of new training contracts. In 1980, the total number of contracts amounted to 649,989, which was reduced in 1988 to 604,003, and even further to 545,190 in 1990. A situation arose in 1990 in which the supply of training places outstripped the demand for apprenticeship on a ratio of 118:100 (BMBW, 1991a:11,18). As a result of this trend employer-led groups, the federal government, and academics, among others, have focussed, and still are focussing, on programmes and policies that would see young adults return in greater numbers to an apprenticeship under the dual system. However, the problems of the training system are connected to and reflect upon the state of affairs of the overall education system.

Education in the Federal Republic has expanded since the beginning of the 1970s to such an extent that the two characteristic features of the German education system, *viz.* the dual system of vocational training and the tripartite secondary school system have been transformed. Table 6.2 (see above) showed that in 1989 some 1,5 million students studied at a *Gymnasium*, a figure which would increase in 1993 by more than 300,000 (Phillips, 1995:39). As a result of this trend, the number of higher education entrants has also increased. The *Hauptschule*, on the other hand, is considered to have lost the modernisation race when compared with the two other types of secondary school. At the same time there is considerable anxiety as to the future of the dual system because of the crucial role it plays in maintaining the country's economic prosperity (*ibid*).

The most important political event at the end of the decade was unquestionably the collapse of the German Democratic Republic. Up to 1989 the GDR had been a relatively stable - and also prosperous - COMECON country. This changed drastically in December of that year after East Germans had taken to the streets to demonstrate for demanding

far-reaching reforms. Many of the conditions which created the collapse of the Democratic Republic, however, were external to the nation (Jones, 1994). The main one was the impact of Gorbachev's reform politics of *perestroika*, *glasnost* and *demokratiskaya* on Honecker's socially and economically troubled Republic, while another was the decision of the Hungarian government in 1989 to dismantle the Iron Curtain and allow East Germans an exit to the West. Honecker's bid to ward off any form of democratisation was unsuccessful in the end, as it was cogently but peacefully opposed by the East Germans. It would be a mistake to assume that when he resigned in 1989 unification was simply only a matter of time. Although some west German observers have stated that the GDR's social breakdown was irrevocable in any case and others considered it as an 'unavoidable historical amendment' (Joas and Kohli, 1993), the road to unification came about in a rather 'hurtling and hurling' way, sanctioned by great power negotiations (Ash, 1994:343; cf. Balfour, 1992).

Of considerable importance in the immediate pre-unification period was a statement Chancellor Kohl delivered to the European Parliament on 22 November 1989. This statement covered ten topics, of which the proposal for the 'development of confederative structures with a view to creating a federation after the free elections in East Germany' was both the most important and controversial one (Jones, 1994:70). In February 1990, and only after the two Germanies had recognised the Oder-Neisse line as constituting the border between the new Germany and Poland, could an agreement be reached between East and West Germany and the four Allied powers that negotiations would commence over economic and monetary union after the free elections in East Germany. These were held on 18 March and resulted in 47.79% of the East German voters endorsing German unification (*ibid*, p.71).

Subsequently, much debate took place as to how the two Germanies could be brought together in an economic, monetary and social union. In May 1990, the West German government announced that it would spend DM 115 billion to fund unification for the period 1990-4, while Helmut Kohl promised that 'no one will be worse off as a result of unification' (Weiland, 1991, *op.cit.* in Jones, 1994:73). With regard to education a Joint Education Committee had been set up in the same period to discuss the consequences of unification. At its meeting of 26 September 1990 the committee stated that in order to ensure comparable education systems were operating in an unified Germany, the five new *Länder* would need to join the KMK and have autonomy over educational matters. It also recommended that in spite of the different education structures in West and East Germany, an 'acceptable degree of standardisation' was to be achieved as quickly as possible after unification, and that it was the task of the KMK and the BLK to work towards the further alignment of the two systems. Furthermore, the committee proposed the West German regulatory framework to be extended to the new *Länder* as from 1 September 1990, which would form the basis also for vocational training reform (Anweiler *et al.*, 1992:515-6).

Ultimately, on 3 October 1990 the Unification Treaty came into force. Article 37 of this Treaty refers to education, and provides for the freedom of movement between and access to the educational systems for the citizens of a unified Germany, and covers schools, vocational training and higher education. It also stipulates that the reorganisation of the school system in the new *Länder* is to be based on the 1964 Hamburg Agreement, and that these states were required to have legislation in place by June 1991 to facilitate the restructuring (KMK, 1994:25-6).

NOTES

1 In Germany a total of 5,25 Million people lost their lives during the Second World War.

2 The two main principles underpinning the Basic Law are 'Sozialstaatlichkeit' and 'Rechtsstaatlichkeit', which provides the West German citizens a framework of both legal and social security. The latter had not been a part of the 1919 Weimar Constitution.

3 Spranger's vocational education theory is in many respect similar to that of Kerschensteiner (Taylor, 1981; Stratmann and Schlösser, 1990).

4 Bavaria was the only State which refused to be a signatory to the agreement, and at this point in time the Saar had not become a part of the Republic.

5 Edding, incidentally, established on the basis of his work the economics of education as a new research field in his country (Springer, 1965:13).

6 In North Rhine-Westphalia, *Kollegschulen* which are upper level *Gymnasien* offering additional vocational programmes were being trialled. The first *Kollegschule*, however, was established in Braunschweig, in the State of Lower Saxony, in 1949, after which similar types of school were set up in other German states (Lawson, 1965:166). This issue will be further addressed in the next chapter.

7 The German word *Qualifikationen* has been translated here as 'qualifications' in English, however, its more accurate denotation is 'skills', 'competencies', or the combination of 'skills' and 'knowledge'. See chapter 8 for a discussion on this issue.

8 This statistic only provides the reader with an indication as to the volume of continuing vocational training in the Federal Republic of Germany. In the next chapters this sector will be analysed more closely.

CHAPTER 7 VOCATIONAL TRAINING AND EDUCATION IN GERMANY TODAY: STRUCTURES, LEGISLATION AND POLICIES

THE DUAL SYSTEM OF VOCATIONAL EDUCATION AND TRAINING

In its normal usage, the 'dual system' of vocational education and training (VET) is a term used for referring to the provision of initial training on a joint basis by enterprises and teaching institutions. However, important supplementary training opportunities exist in the form of regional networks of inter-company training centres, which provide technology and the teaching of skills for those training companies unable to impart those to the full prescription (see next chapter). Training provided in the dual system is more or less uniform throughout the nation. The 370 federal state-recognised training occupations cover virtually every sector of the economy which include, for example, areas such as administration, health, services and agriculture.

An apprenticeship lasts approximately two to three-and-a-half years depending on the trade, the entrance qualification, and the apprentice's progress. Under the Vocational Training Act, youths under the age of 18 can only be trained in a national recognised 'training occupation' (*Ausbildungsberuf*). Access to training is neither conditional upon any particular school-leaving certificate, as 'training is fundamentally open to all young people' (The Federal Minister for Education and Science, 1992:6), nor to a particular age group, as training is offered not only to 16 year old school leavers but also to older persons. Tessaring (1993:135) notes that the German training system has become a form of adult education as three out of every four apprenticeship entrants is of age. The average age of apprentices in 1989 was 18.8 years and has

increased over the last twenty years due to students staying longer at school and undertaking pre-apprenticeship courses.

According to Benner (1992:26-7), the open entry policy particularly promotes equality of opportunity as entry to apprenticeship is not dependent upon an entrant holding a particular type of qualification but, nevertheless, is conditional on a person having concluded full-time compulsory schooling. It follows that apprenticeship entry is based on a formal certification requirement. In practice, the training occupations require different entry qualifications according to employer preferences and type of training, some of which are academically more demanding than others, while Pritchard (1992:139) states that 'it can be especially difficult for foreigners, young women and the disadvantaged or handicapped to enter the Dual System'. And it is with regard to these factors that the freedom of choice of (training) occupation as a social and economic right is constrained in terms of entry qualifications and on the basis of gender, class and ethnicity (*cf.* Keune and Zielke, 1992:33). Thus the 'open access' policy, which is not being applied anywhere else in the education and training systems and which appears to be a measure essentially incompatible with Germany's strong qualifications-based award system, would appear to be a fiction and an example of officialdom's policy rhetoric (Kutscha, 1993).

An important feature of the dual system of vocational training is that employers provide training on a voluntary basis, and consequently admission to an apprenticeship is largely determined by the human resources needs of a private firm. Those companies offering training subsequently play, both at the individual and collective level, a crucial role in ensuring the 'dual system' is maintained and developed. The heart of the matter therefore is the issue whether the economy is able to sustain sufficient training places (Kruse and Paul-Kohlhoff, 1990; Ortleb, 1994).

Despite the fact that recent data indicates that the economy is still supplying 114 training places for every 100 apprenticeship applicants (Ortleb, 1994:1), a definite trend is emerging that employers are reducing the number of training places for reasons of decreased demand and costs (BMBW, 1994a; Pütz, 1996:4; BiBB, 1996e:3). Tessaring (1993:154) notes that current statistics demonstrate that firms are less prone now to offer apprentices employment after they complete their term which, in turn, may be indicative of their reducing training capacity.

Training is considered not merely a cost in Germany but a necessary human resource management investment which has become a part of strategic planning, and is deemed as important as investment in physical capital (Lane, 1990). Nevertheless, there are considerable differences in training behaviour within and between sectors. Large firms tend to consider apprentice training as a longer term investment, providing them with skilled labour for the internal labour market, and human capital investments are generally only made when economic forecasts are favourable. Smaller firms are, research has shown, more interested in the immediate returns obtainable from apprentices and tend to countercyclically adjust their training volume (Casey, 1986:67-9). In general terms, there is a high level of support from all the interest groups involved for sustaining a high volume of initial vocational training. Thus the craft sector is making an important contribution to the German economy by training substantially beyond their sectoral needs (Lane, 1991; BMBF, 1995d). In 1991, there were some 500,000 apprentices in the craft trades, compared to approximately 750,000 in the commerce and industry sectors (Smith, 1994:269) (1). As a result of this practice of overtraining, craft tradespersons transfer in substantial numbers to other industry sectors for employment opportunities and it is not unusual for them to

obtain jobs as a semiskilled or even an unskilled worker in large industrial enterprise (cf. Schober, 1984).

A breakdown of apprenticeships offered in the German economy by company size reveals that 87% of large enterprises (1,000 or more employees) are engaged in providing apprentice training under the terms of the dual system, as compared to 60% of small companies (5-9 employees) and 50-75% of those firms employing between 10 and 200 staff (BMBF, 1995d:17). More than 50% of the apprentices are trained in companies with less than 50 employees, and approximately one-third in craft-based firms, employing between 5-20 employees, which clearly indicates the importance of the SMEs for the overall economy. On the other hand, companies with over 500 employees train only some 17% of all the apprentices (*ibid*). In addition, some 700 inter-company training centres are offering 85,000 training places (BiBB, 1994a).

It is through the signing of a training contract that an agreement between an employer and an apprentice is formalised, which specifies the rights and obligations of each party, and forms the basis for the teaching of skills and knowledge to the relevant national syllabus. Thus, apprentices are both *Berufsschule* students and trainees, who receive training allowances based on collective agreements between employers and trade unions. The following table gives an indication as to level of their payments. It also shows the existence of significant discrepancies in training allowances for apprentices in the old and new *Länder* who are in training in the same training sector. On the other hand, there are also important differences in income between apprentices and skilled workers in the same trade as the former earn approximately 40% of the salaries of the latter group (Casey, 1986). The relatively low level of training allowances apprentices receive in Germany is accepted by the 'social partners' (2) as they consider that vocational training is an investment to

which apprentices are expected to make a contribution (Streeck *et al.*, 1987:23).

TABLE 7.1

AVERAGE MONTHLY ALLOWANCES FOR APPRENTICES PER TRAINING SECTOR IN 1993 IN THE OLD & NEW LÄNDER		
Public service	1106 DM	903 DM
Industry and commerce	1060	841
Free professions	899	762
Agriculture	891	744
Craft sector	841	700

Source: Beicht, 1994:43

In 1995, the number of new training contracts registered with the Chambers amounted to 572,774 while the demand for training places (597,736) had been outnumbered by the supply of apprenticeships (616,988) (BMBF, 1996d:171). In 1994, a total number of 1,579,700 apprentices were being trained in the dual system for a recognised occupation, 298,700 of whom were in the new *Länder* (BMBF, 1995c:112). The majority of the apprentices received their training in the industry and commerce sectors (723,900) followed by the craft sector with 588,300 trainees, the free occupations sector with 159,000, agriculture with 29,400 and the public service, maritime and the domestic sectors with 66,400, 3,000 and 12,400 apprentices respectively (*ibid*). The ten most popular trades chosen by apprentices in 1993 are given in the table below.

Data in table 7.2 reflects the popularity of the commercial trades among apprentices as those listed in the above table make up 14.5% of all the recognised trades. It also reveals that the 10 most sought after trades constitute 35.7% of all the training occupations, a percentage which increases to 54.5% for the 20 most favoured trades (*ibid*). Consequently, a

relatively large number of the so-called '*Splitterberufe*' (minority trades) exist in which the number of new entrants is so small that one could, or perhaps should, question their economic viability. Of interest too is the

TABLE 7.2

THE TEN MOST POPULAR TRADES FOR APPRENTICES IN 1993 BY TRAINING SECTOR, RANK ORDER, ABSOLUTE NUMBERS AND PERCENTAGE

TRAINING OCCUPATION	SECTOR	RANK	NUMBER	PERCENTAGE
automotive engineer	cr	1	83,068	5,1
retail salesperson	cr/ic	2	73,775	4,5
commercial clerk	cr/ic	3	64,837	4,0
bank clerk	ic	4	63,653	3,9
industrial clerk	cr/ic	5	57,859	3,6
electrical fitter	cr	6	52,207	3,2
doctor's assistant	fp	7	51,804	3,2
wholesale and foreign trade businessperson	cr/ic	8	49,136	3,0
hairdresser	cr	9	42,734	2,6
bricklayer	cr/ic	10	41,557	2,6
TOTAL			580,630	35,7

Source: BMBF, 1995c:117

Key: cr=craft; ic=industry and commerce; fp=free professions

fact that a significant proportion of the training places included in the above table are provided by the craft sector or are offered by both the craft and the industry and commerce sectors. Data produced by the Federal Ministry of Education, Science, Research and Technology (see table 7.3 below) reveal that a progressive quantitative decline is noticeable in all the five major training areas in the old *Länder* in the period of 1990 to 1994, which is consistent with research findings of the Federal Office for Statistics (1994b:16-7) for the first three years of that period.

The data released by the Federal Office for Statistics show that from 1987 (to 1992) there has been a steady decrease in the total number of apprentices. However, at the sub-sector level there are a few exceptions, in that in the old *Länder* small increases have been registered in 1992 for apprenticeships in the areas of fitter, mechanic and allied trades and in the traffic and business service training occupations. The health service sub-sector saw a fairly significant increase also as the total number of apprentices was up by more than 4,000 apprentices on the previous year

TABLE 7.3

APPRENTICES BY TRAINING OCCUPATION AREA IN THOUSANDS FROM 1990-1994 IN THE FORMER WEST GERMANY (A), THE NEW LÄNDER (B) AND UNIFIED GERMANY (C)

YEAR	OCCUPATIONAL AREAS					TOTAL
	IH	HW	LW	OD	FB	
A						
1990	756,4	486,9	29,7	63,4	130,3	1.476,9
1991	734,3	460,4	27,4 (1)	61,8 (1)	137,4 (1)	1.430,2
1992	690,6	459,6	24,7 (1)	62,0 (1)	143,2 (1)	1.388,3
1993	646,0	459,0	23,5 (1)	61,1 (1)	141,5 (1)	1.339,1
1994 (2)	591,6	462,9	23,1	52,9	142,3	1.281,0
B						
1990						255,5
1991	145,0	67,0	10,1 (3)	3,6	6,4	235,3
1992	151,0	93,9	8,3 (3)	9,3	11,4	278,3
1993	140,0	108,7	6,2 (3)	12,2 (3)	15,3	287,5
1994 (4)	132,3	125,4	6,3	13,5	16,8	298,7
C						
1990						1.732,4
1991	879,4	527,4	37,5	65,4	143,8	1.665,5
1992	841,6	553,4	33,0	71,4	154,6	1.666,6
1993	786,0	567,7	29,7	73,3	156,9	1.626,6
1994 (5)	723,9	588,3	29,4	66,4	159,0	1.579,7

Data adapted from: BMBF, 1995c:112

Key: Occupational areas: IH=industry & commerce; HW=craft; LW=agriculture; OD=public service; FB=free professions (the maritime and domestic occupational sectors are excluded; (1) denotes including East Berlin; (2) incl. East Berlin and preliminary results; (3) excl. East Berlin; (4) excl. East Berlin and preliminary results; and (5) preliminary results.

(*ibid*, p.17). On the basis of these statistics it is possible to identify two trends. Firstly, it shows that despite a continuing negative trend in the number of apprentices entering the industry and commerce sectors, the public service sector, and the primary industry that, on the other hand, an increasing number of young people commence training in the craft and service sectors (Statistisches Bundesamt, 1994b). Secondly, an expansion of apprenticed training in the five main training sectors (see table 7.3. above) can be observed in the new *Länder*, with the exception of the industry and commerce training sector in which the volume of new entrants is dwindling. A total number of 54,200 places in the whole of the new Republic remained unutilised, of which only a relatively small number (1,400) are in the new *Länder* (BMBF, 1995c:124).

The costs for in-company training are borne by the companies themselves, amounting to roughly 35 billion German marks per year. The annual average net costs for an employer in the industry and commerce and the trades sectors to train an apprentice amounted to DM 17,862 in 1991, and depends on factors such as the proportion of systematic training as distinct from work experience, the number of trainers and whether they provide training on a part-time or a full-time basis, and the apprentices' wages, among others (von Bardeleben *et al.*, 1994:8). Moreover, the companies are required to pay a levy to the Chambers for their services, such as for apprenticeship administration and examinations.

The structural features of the German training model alluded to so far indicate that the 'dual model' is a state-controlled market model

(Schelten, 1991). This model has developed into its current state as the result of not only centuries of national training commitment, but also in accordance with the consensus principle, which prevailed prominently in West-Germany since the enactment of the 1949 Basic Law. Importantly, and it is in this aspect that the German concept of training differs substantially from concepts employed elsewhere, economic as well as social and cultural reasons underpin a commitment to training (Dougherty, 1987:195). These economic and social aspects of training are (and have been) reflected and fully endorsed in federal government policy, which recognises that training must have a labour market focus but should simultaneously be oriented towards the personality development of trainees (BMBW, 1994b:1).

The German system is primarily characterised by a number of duality levels (see table 7.4 below) as well as by a complex legal-administrative framework for initial VET, as discussed below. The dual system is considered to be one of the four main training models in the world. The other three are: the market model or liberal model (*e.g.* the U.S.A. and Japan), the school model or bureaucratic model (*e.g.* France, Sweden), and the mixed system (*e.g.* Great Britain) (*ibid*). The different duality components of the German training model, as depicted below, are discussed in a number of separate chapters. Although the table generally presents an accurate outline of the organisation of the dual system, there are 'duality levels' which relate to other aspects.

Stratmann (1990:296-299) identifies three different duality levels. Firstly, he points out the historical dimension by stating that training legislation for the craft and the industry sector have had different origins and differed in content and scope. Secondly, there is the distinction between social partners-endorsed training prescriptions, to which the part-time vocational school curricula have to be aligned to and the *Land's*

curricular responsibility for full-time vocational schools. The third duality level he depicts as the difference between apprenticed and semi-skilled training. Thus according to his views, the concept of duality does not only relate to the organisation and structure of vocational training *per se*, but also that each component of the system, *i.e.* the historical, pedagogical, legal and political dimensions, carries a complexity of its own in terms of legislation, policies, responsibilities and practices. Subsequently, and

TABLE 7.4

THE DUAL SYSTEM OF VOCATIONAL TRAINING		
COMPONENTS	DUALITY	
Place of learning	Training company	<i>Berufsschule</i>
Teachers	Trainers	Teachers
Learners	Trainees	Students
Training regulations	Training ordinance	Framework curriculum
Primary didactical principle	Labour process orientation	Scientific orientation
Supervision	Chambers	Federal State
Planning	Economy	Federal State
Funding	Enterprises	<i>Länder</i>
Legal responsibility	Federal State	<i>Länder</i>
Aim	Competence in vocational, private and public domains	

Source: Benner, 1995:33

given the fact that inter-company training centres are taking in an indispensable role in the German training system, the use of the term 'dual' is misleading and could be considered inappropriate (Hilbert and Völzkow, 1990). Moreover, in Germany the workplace and the *Berufsschule* are considered places of learning unequal in status and are seen as making uneven contributions to the overall vocational training aim, *i.e.* an apprenticeship is the preparation for the practice of a recognised occupation in the economy (Adler and Benner, 1995:14). Therefore, the value of on-the-job training in achieving this goal is self-evident and it is conducted in conditions which closely resemble the realities of the world of work. In this context, it is not unimportant to state that the Vocational Training Act reinforces this focus and, significantly, the Act makes no reference to education at all.

However, it would be a mistake to focus too strongly on the 'duality' concept despite its obvious significance, as the concepts of 'occupation' and 'training occupation' are even more central to the German training model. It is through the process of developing and recognising training occupations, by the BiBB and the competent federal ministry respectively, that qualification profiles are standardised for certification and subsequently gain social acceptance and economic relevance. The concept of 'training occupation' is a social, legal and technical construct which serves as a reference point for the modernisation of the dual system and an instrument of adjustment for changing labour market requirements.

Upon completion of an apprenticeship and the passing of the final trade examination (3) in an industrial training occupation graduates are awarded a *Facharbeiterbrief* (skilled worker's certificate), and those having completed the prescribed requirements in the craft sector receive a

journeyman's certificate (*Gesellenbrief*). These skilled worker's qualifications are fundamentally equal in value (4) and nationally recognised. They give German workers strength in external labour markets, and also form the basis for social and legal entitlements, such as social security and a minimum wage level. Furthermore, the skilled worker's certificate is considered to be the base qualification for entry into nationally recognised further training courses.

In general terms, a person may have to meet additional requirements, such as a prescribed number of years of relevant work experience, and/or the completion of advanced vocational courses. The skilled worker's certificate does not, as a rule, entitle its holder to pursue studies in higher level education programmes. However, there are programmes which combine general and vocational learning and lead towards double qualifications, one of which gives access to tertiary level studies, while the other is employment focussed (see below) (CEDEFOP, 1994:58). The experimental nature of these measures does not compensate for the fact that decades of discussion between the federal government and the *Länder* have not produced more tangible results other than repeated general policy intentions to address the status difference between general education and vocational training.

Further or continuing education is considered in Germany to be the fourth education sector and encompasses further vocational training, and is regarded as part of the overall education system which is presently in its developmental stage (Alt *et al.*, 1993:40). The main features of this sector are the multitude of providers (*e.g.* private providers, professional bodies, Chambers, social partners and companies), its market orientation and the complementary role of the federal state. Legislated responsibilities run parallel to those prevailing in initial trade training, where the federal state

has responsibility for regulating further training outside the school system. Enterprises are the main providers, investing over 23 billion German marks for a total population of more than 3.5 million participants in further training (BDA, 1989:7). The *Länder* have control over in-school programmes on the basis of the *Land* school laws while the Vocational Training Act provides the legal basis for the federal state's authority in this area, and defines the purpose of further training as to 'enable a person to retain and extend his occupational knowledge and skills, to adapt them to technical developments or to make progress in his career' (Münch, 1991:152). It also stipulates that the 'competent body' is responsible for determining the subject matter, purpose, standard, procedure and conditions for admission to examinations and, lastly, for running these examinations, regulations which are also applicable to retraining (BMBW, 1979:35-6).

A characteristic of the further education and vocational training sector is that there is no transparency as to the type of courses delivered since the examinations are not state-regulated and course completion does not lead to the conferment of recognised qualifications and subsequent entitlements. This market-driven qualification system is essentially providing a means for skill improvement and career advancement, and programmes tend to be industry or enterprise-specific. For German workers, the incentive for acquiring further skills is related to promotion procedures which emphasise competence rather than seniority at all levels, but do not necessarily require formal certification (Lane, 1990:252). Employers oppose any intervention from the federal state in company-based further vocational training as they claim that this is a matter for a firm's management to consider and, furthermore, the nature of further training requires flexibility, not government regulation (Weegman, 1992:54; BDA, 1993:90). In the regulated VET qualification system, the

FIGURE 7.1

skilled worker's certificate is thus a nationally recognised entry-level vocational credential, required as a base qualification for both practicing a trade and for entry into an advanced vocational course.

Figure 7.1 (see above) provides a simplified outline of the main pathways in post-compulsory vocational education and training that are currently available and regulated under either *Land* law or the Vocational Training Act. *Meister*, *Techniker* and equivalent designations in the business sector, such as *Wirtschaftler*, are classified as *Fortbildungsberufe* ('further education occupations') (5) in Germany and are deemed middle level occupations in the employment market, positioned between the skilled worker and the engineer. The requirements for entry into an advanced vocational course leading to one of the named occupations is as a rule similar, *i.e.* a prospective entrant is required to hold the skilled

worker's certificate and have a number of years of work experience in the field he or she wants to sit the advanced vocational examination. In the craft sector, there are 27 *Meister* examination prescriptions and for the industry sector 14 standardised regulations exist which apply throughout the Republic (Bundesanstalt für Arbeit, 1993:425-6). In the other industry sectors, similar regulations exist. A third pathway available to graduates of the dual system to further their studies and training is to enter an advanced vocational school (see also section below) on the merits of either their trade qualification or secondary school qualification. There is a clear trend emerging whereby youths holding higher level secondary school qualifications enter the dual system and aim to maximise their employment and study options by gaining a skilled worker's certificate first and then commence tertiary level studies. In 1990, 46% of *Abitur* certificate holders were planning to study for a degree after completing their apprenticeship (BMBF, 1995d:81).

A number of pathways are thus available to graduates of the dual system to advance their learning at the post-secondary level. There are, however, some not insignificant trends which make clear that policy adjustments may be required in the future to make the dual system more attractive for students and to give it more status in the overall education system. Firstly, a quarter of new training contracts were dissolved prematurely in 1990, amounting to a total of more than 142,000 in 1994, while 39% of the drop-outs in 1990 were not interested in re-entering apprentice training at a later stage in their life (BMBF, 1996d:52). Secondly, data (see table 7.6) demonstrate that 13% of the apprenticeship graduates in the old *Länder* in 1991 were neither in employment nor in further training which is a similar percentage to those people continuing in post-compulsory education (Liesering *et al.*, 1994:14). In the same year, 4% of

TABLE 7.5

APPRENTICES BY ENTRY QUALIFICATION AND TRAINING SECTORS IN 1994 IN PERCENTAGES								
ENTRY QUAL.	TRAINING SECTORS (1)							
	IH	HW	LW	OD	FB	HWS	SF	TOTAL
Without Hauptsch.	1.4	6.2	6.6	0.5	1.0	29.7	0.6	3.5
Hauptschule	23.6	48.1	36.7	9.5	26.1	36.5	19.0	33.1
Realschule (2)	37.1	31.1	28.7	55.6	49.6	6.4	25.9	36.2
Hochschulreife (3)	22.0	5.3	14.5	20.5	17.2	0.8	50.0	14.8
BGJ (4)	2.1	4.2	9.3	8.4	1.1	5.9	1.7	3.2
Berufsfachschule	10.6	3.5	3.4	4.9	4.7	6.9	-	7.0
BVJ (4)	3.2	1.6	0.9	0.7	0.4	13.8	-	2.2

Data adapted from: BMBF, 1996d:44

Key: (1) IH=industry & commerce; HW=craft; LW=agriculture; OD=public service; FB=free professions; HWS=domestic; SF=maritime; (2) or equivalent qualification; (3) university entrance qualification; (3) see next section for explanation.

people completing their apprenticeship in the former West Germany were registered as unemployed but this figure which rose dramatically to 17% in 1993 (*ibid*). In the new *Länder* one in every four persons became unemployed after completion of initial trade training, statistics which are causing considerable concern in the Federal Republic of Germany (BMBF, 1995d:121; BMBW, 1991a).

In 1993, a total of 171,058 persons were registered as sitting for an advanced vocational examination in a recognised training occupation. Approximately 80,000 of these examinees were in the industry and commerce sector, with a similar number in the craft sector (BMBF, 1995c:312-15). Research conducted by BiBB/IAB has found that in the period 1987-1992, 35% of the workforce had participated in some form of

further training or retraining in a recognised occupation (Jansen and Stooss, 1993:106). In 1991, approximately 10 million people participated in a course of further training. Significant differences come to the fore however when one takes into account the educational background of those people pursuing further education/ training courses. Fifty-nine per cent of university graduates took part in a further education course in 1991, while in the same year only 18% of persons who had not completed their apprenticeship were enrolled in some form of further learning (Statistisches Bundesamt, 1994c:69). These statistics indicate the importance of the fourth education sector and it is expected that further vocational training will play an increasing role in (re)qualifying the workforce and upgrading their skills and knowledge in the face of continuing economic, technological and social changes. The skilled worker's certificate, on the other hand, is expected to increasingly take on the character of a basic qualification (*cf.* CEDEFOP, 1994).

VOCATIONAL EDUCATION AT FULL-TIME VOCATIONAL SCHOOLS

In the dual system of vocational training, theoretical trade instruction is provided at a *Berufsschule* on a part-time basis. This system of VET is supplemented and extended by the provision of full-time institutional vocational education at a wide range of different types of vocational schools, some of which only exist in one particular *Land*, and which all are part of the upper secondary school system (*Sekundarstufe II*). These full-time vocational schools have taken a prominent place in the German education system, particularly since the beginning of the 1980s when they had been further developed by the federal government and the KMK in response to both an existing strained training market and to make it easier for youth to gain access to vocational education (Arbeitsgruppe, 1994:586). The majority of full-time vocational and technical programmes

at the school types described below are in occupational fields and levels where no apprenticeships are available or scarce. This complicated and highly differentiated system will be described below in some detail so as to present a concise survey of the various general types of school available in the German vocational education system.

At the age of 15 or 16, depending on the school laws of a *Land*, approximately one-fifth of students continue their general education in a *Gymnasium*, three-fifths move into apprentice training and the remaining fifth enter an institutional vocational education programme (Office for Standards in Education, 1994:4). Examples will be given in this section of pathways currently available to students who wish to pursue training at advanced vocational and technical schools after having completed their training under the dual system. Subsequently, the system's flexibility and transparency will be analysed.

Berufsfachschulen, which originated in the fourteenth century, are generally referred to as full-time vocational schools offering a wide range of specialisation courses in fields such as social work, public health, home economics and business studies for students in the 15-18 age group, of which approximately two-thirds of the students are female (see below, table 7.7). The length of these courses vary from one to three years of study depending on the type of programme and school. An integral part of the curricula is the extension of general education subjects from the junior secondary level. Münch (1991:122) categorises *Berufsfachschulen* into three different types, all of which usually require a *Hauptschule* leaving certificate as the minimum entry qualification or, alternatively, a *Realschule* certificate. The first type is where an individual usually enters the labour market upon attainment of a vocational qualification in a recognised skilled occupation, after having completed a two-year full-time course. These schools may confer on students an intermediate secondary school

leaving certificate as well, an action which is also applicable to some of the one year schools. Graduates of the second type, which mainly comprises commercial schools, may have their studies recognised as equivalent to the completion of the first year of a commercial apprenticeship under the dual system (KMK, 1994). The third type is relatively rare as there are only seven *Berufsfachschulen* delivering three-year trade engineering courses (Münch, 1991:122). These three types represent only a general classification since in North Rhine Westphalia, for example, two as well as three year *Höhere Berufsfachschulen* have been established, e.g. the two-year Higher Commercial School and the three-year Higher School for Physical Education (Kultusministerium des Landes Nordrhein-Westfalen, 1993:10). Research has found that the majority of *Berufsfachschule* students entered

TABLE 7.6

TRANSITION FROM SENIOR SECONDARY SCHOOL AND HIGHER EDUCATION GRADUATES TO THE EMPLOYMENT MARKET OR FURTHER EDUCATION IN 1991 IN ABSOLUTE NUMBERS (000s) AND EXPRESSED IN PERCENTAGES

TYPES OF SCHOOL	VOLUME (000s)	DESTINATIONS						
		DS	FS	FO/FG	FH/U	EMP	UNE	OTHERS
1 Dual system	531	—	4%	5%	3%	75%	4%	9%
2 Berufsfach/a	161	52%	20%	3%	4%	13%	4%	2%
3 Fachschulen	87	—	—	2%	16%	73%	2%	3%
4 FH/Univers.	198	—	—	—	—	78%	8%	11%

Adapted from: Liesering *et al.*, 1994:14

Key: (1) DS=dual system; (2) FO/FG=Berufsfach/Berufsaufbauschulen; (3) FS= Fachschulen (data include the schools for the health professions; (4) FH/U=Fachhochschulen and universities; (5) EMP=employment; (6) UNE= unemployment; and (7) OTH=others.

this school as their first choice and seldom because they had failed to find a training place in the dual system. However, upon completion of studies at the *Berufsfachschule*, two-thirds of the students completing a one-year programme and nearly 70% of those graduating from the two-year course want to enter an apprenticeship, while only 31.5% of the students completing the third type of school aim to do the same (*ibid*, p.123). The IAB calculated that of the 161,000 *Berufsfach-/aufbauschulen* graduates in 1991, 52% went on to undertake an apprenticeship whereas 20% continued further studies at the *Fachschule* and 13% entered the workforce (Liesering *et al.*, 1994:14).

Berufsaufbauschulen (vocational extension schools) are located at the senior secondary level and can be attended on either a part-time basis, when the student concurrently undertakes apprenticed training for usually a period of three years, or by enrolling in a one-year full-time course after the completion of an apprenticeship. The vocational extension school's curriculum is a combination of both general and vocational education subjects, but while students can specialise in areas such as technology, economics, home economics, social work and agriculture, the curricular emphasis is on the extension of general education. Those students completing the programme successfully attain the *Fachschulreife* certificate, which confers their eligibility to enter a *Fachschule*, and which is a qualification deemed by the KMK to be equivalent to the *Realschule* leaving certificate. Originally, the *Berufsaufbauschule* was established to provide an opportunity for students and workers from the lower socio-economic classes with only a *Hauptschule* education to pursue studies in higher education via an alternative pathway, on the basis of completion of vocational education and work experience. Research has indicated that this policy aim has not been met since a considerable proportion of entrants came from the middle classes (Münch, 1991:128). The low number

of students entering the *Berufsaufbauschule* evidently signals its low status among the other types of full-time vocational education.

The *Fachoberschule* (technical secondary school) was established after 1969 in 10 of the 11 former West German *Länder* and provides a two-year full-time programme (grades 11 and 12) for which the entry requirement is the *Realschule* certificate. Originally, the *Fachoberschule* was seen as an extension level of the *Realschule* (Arbeitsgruppe, 1994:461). *Fachoberschulen* exist in fields such as technology, business and administration, nutrition, design, maritime studies, agriculture and social work. Its curriculum consists of a combination of general education and specialised vocational subjects as well as practical training. The latter takes place in the first year, on a four-day per week basis, as agreed to by the KMK, while the first two curriculum components are mainly delivered in grade 12. Students who have completed an apprenticeship in the dual system are allowed to commence their studies in the second year (KMK, 1994:105). Upon course completion, students gain a *Fachhochschulreife* certificate which entitles them to pursue studies at a *Fachhochschule*. Table 7.7 (see below) shows that the demand for this school type increased slightly in 1994 from the previous year and the number of its student constitute a relatively substantial amount of the total student population in vocational education.

The *berufliches Gymnasium*, or *Fachgymnasium* as it is known in some *Länder*, delivers career-oriented upper secondary level programmes of three years' duration, covering grades 11 to 13, which build on the junior stages of an ordinary *Gymnasium* education. The *Realschule* certificate is the required entry qualification. In concrete terms only some 9% of those students holding the *Realschule* or equivalent qualification continued their studies at a *berufliche Gymnasium* in 1991 (Liesering *et al.*, 1994:13). *Berufliche Gymnasien*, however, can be subdivided into no fewer than 66

types of institutions, all having their own specialisation areas (cf. Münch, 1991). The total student population at this school type is considerable since more than 81,000 students were registered in 1993 (see table 7.7). In 1988 the KMK decided that this school could also offer programmes in the fields of economics, engineering, home economics, agriculture and social pedagogics (Schaub and Zenke, 1995). As a rule, the *berufliches Gymnasium* leads to a general higher education entrance credential, but upon completion of a special curriculum and the passing of the *Abitur* examination a certificate is issued which entitles a graduate to study in

TABLE 7.7

STUDENTS (000s) IN VOCATIONAL EDUCATION BY SCHOOL TYPES
IN UNIFIED GERMANY IN 1992 AND 1994

SCHOOL TYPE	STUDENTS		TOTAL 1994
	TOTAL 1992	FEMALES (part of total)	
Berufsschulen	1,678.7	698.4	1,563.9
BVJ	37.1	14.3	51.7
BGJ	80.5	24.2	98.1
Berufsaufbauschulen	6.5	2.1	4.7
Berufsfachschulen	263.5	170.7	295.0
Fachoberschulen	75.4	28.3	78.0
Fachgymnasien	78.7	34.8	85.9
Kollegschen	73.0	27.9	79.6 (1)
Berufsober-/Techn. Oberschulen	5.2	1.8	3.9
Fachschulen	162.4	64.1	158.3
Fachakademien/ Berufsakademien	9.2	6.6	8.6
TOTAL	2,470.2	1,073.3	2,427.7

Data compiled from: Statistisches Bundesamt, 1994a:21, and BMBF, 1995c:48-9.

Key: (1) refers to Kollegschen in the State of North Rhine Westphalia.

one particular faculty at an institution of higher education. It is also possible to study concurrently for a four-year double qualification at a *berufliches Gymnasium*, i.e. the higher education entrance certificate and a number of vocational qualification in a number of selective study areas, for which a candidate is required to pass two separate examinations (KMK, 1994:106).

Fachschulen (technical schools) offer one to three year advanced vocational courses which lead to middle level positions in the employment market. One-year *Fachschulen* exist, for example, in the field of agriculture, whereas two-year courses are available in some 90 different fields, such as engineering and business management. Social pedagogics, on the other hand, can only be studied in a three-year *Fachschule*. Thus *Fachschulen* are highly differentiated with respect to type of school, curricular emphasis and course delivery, and they provide full-time vocational education to a student population of approximately 154,000, which is second only to the *Berufsfachschule* in the full-time vocational school system. A further characteristic is that a significant number of *Fachschulen* deliver their curricula on a part-time basis. Students are generally admitted on the basis of their having completed initial trade training relevant to the field of study or on the basis of suitable work experience. Courses at this school type are concluded with a state examination, and its graduates are entitled to use a professional title, such as *Staatlich geprüfter Techniker* (state-examined technician) for those who have completed a two-year programme at a *Technikerschule* (technician's school). Another example of a type of *Fachschule* is the *Meisterschule* (master craftsmen school). It is possible for *Fachschule* students to become eligible to study at a *Fachhochschule* after they have completed an extension curriculum. Only 4% of those who completed their apprenticeship in 1991 continued their

studies at a *Fachschule*, a figure which has remained nearly constant since 1980 (Liesering *et al.*, 1994:14).

The *Kollegschule* is an experimental school type set up upon the recommendation of the German Education Council in its Structural Plan for the Education System and aims to integrate general and vocational education courses at senior secondary level. Consequently, there is a wide range of general, academic and vocational courses available to students at all levels. Each *Kollegschule* specialises in five to six vocational areas. Two-thirds of the 2,000-3,000 students enrolled undertake part-time study as part of the requirements for their training in the dual system, while one-third attends double qualification courses on a full-time basis (Office for Standards in Education, 1994:6). This double qualification concept has been designed to give students, particularly those holding a *Realschule* or a *Hauptschule* certificate, the opportunity to gain a tertiary education entrance qualification and at the same time a vocational award, *i.e.* the *Abitur* and the *Fachhochschulreife*, each of which combined with state-examined vocational qualifications, provides entrance to university/employment and technical college/employment respectively (*ibid*, p.5).

Lastly, two types of full-time vocational education require brief mention. First, the basic vocational training year (*Berufsgrundbildungsjahr*; BGJ). This was introduced in the 1960s as a reform concept aimed at providing a systematic broad-based training common to allied trades within an occupational field, of which there are thirteen in total (Schaub and Zenke, 1995:65). But it was not until the 1970s, that the KMK endorsed the implementation of the concept in its 1973 and 1978 Framework Agreements. The BGJ is a part of the public education system and is supervised by the Ministry of Education of a *Land*, and may replace the first year of an apprenticeship: this depends on the student meeting

criteria specified in federal regulations. It is for example possible for successful BGJ students, not holding a *Hauptschule* certificate, to gain simultaneous recognition for BGJ completion and their prior general education at the level of a *Hauptschule* qualification (*ibid*). However, the BGJ also exists in a co-operative form where it is jointly delivered by the *Berufsschule* and a training company. This foundation phase is followed by stages of specialised training. Table 7.7 illustrates the proportion of students in BGJ and the significant increase of its volume in 1994 with regard to 1992.

The *Berufsvorbereitungsjahr* (BVJ) or vocational preparation year was introduced in the mid-1970s as a labour market and vocational training policy measure designed to reduce rising youth unemployment at a time of a noticeable decrease in available training places. Those young people not in education or training after compulsory education were required to attend the BVJ (Bundesanstalt für Arbeit, 1992:227). More recently, the BVJ is considered to be a special form of the BGJ for youth not able to make either a career or a further study choice. The one-year course comprises an extension of general education and vocational courses offered in a number of occupational fields. The number of entrants of both the BVJ and the BGJ programmes are important indicators for the federal and the state governments and of the economy, as to the degree in which the education and training systems are successfully aligned with the employment market. It is at this level that not only the interrelationships and boundaries of the different policy sectors become apparent in Germany, but also the spheres of influence and responsibility.

AN OVERVIEW OF THE LEGAL FRAMEWORK

The 1969 Vocational Training Act (BBiG) provides a legal framework for on-the-job training in the Federal Republic of Germany.

The Act comprises nine sections which detail the general regulations, including the scope of the Act, the general vocational training arrangements, the organisation of vocational training, the vocational training committees, and research into VET. The part of the 1965 Crafts Code (*Handwerksordnung*) regulating vocational training for the craft trades was amended to comply with the provisions of the Act, although a number of provisions under the Code are still applicable to the craft sector. This legislation gives the federal government responsibility for on-the-job training while another important feature is that the Act stipulates that those enterprises providing vocational training must assume responsibility for it. The Act is not an educational law but can, in constitutional terms, be classified as both a labour and an economic law (Münch, 1991:45).

The Act, however, also purports to be a main policy aim for vocational training by stipulating that '*Berufsbildung* should provide broad-based initial vocational training and impart the skills and knowledge necessary for occupational practice, whilst also making allowance for the acquisition of work experience' (BMBF, 1994). In the Act, '*Berufsbildung*' is used as a generic term for initial and further vocational training, and retraining. It aims specifically to foster the occupational mobility of skilled workers in order to meet the demands of changing economic, technological and demographic realities. The purpose of further vocational training, according to the Act, is to build on a base qualification, and to maintain and develop occupational knowledge and skills in the face of structural changes, or to be for career advancement. Retraining, on the other hand, provides individuals with those skills which will enable them to undertake other tasks in the workforce when required by, for example, changing occupational profiles (*ibid*).

This Act, naturally, does not operate in isolation for it borders on and is influenced by both the school laws (for which the individual *Länder* have sole responsibility) and the Basic Law. With regard to the latter, all the regulations and rules in vocational education must be in conformity with constitutional rights, such as an individual's basic right of freedom of choice of occupation. The federal state assumes legislative competence in the fields of labour and economic law, which includes non-institutional vocational training. The administration of apprenticeship training, however, rests with the *Länder*, although in practice this has been devolved to the Chambers, which operate under *Land* supervision.

Recently, this existing pattern of supplementary and conflicting legislative responsibilities has been the subject of extensive parliamentary discussions following the signing of the Unification Treaty, as Article 5 required the amendment of the Basic Law. For this purpose, a Joint Constitutional Committee (*Gemeinsame Verfassungskommission*) was set up in 1992, consisting of members of the *Bundestag* and the *Bundesrat*. The committee recommended in late 1993 to amendment of Articles 72, 93 and 125 of the Basic Law. This would increase the legislative competence and cultural sovereignty of the *Länder* in the fields of education and vocational training. Employer representative bodies strongly opposed the proposal as, in their view, a loss of federal uniformity would produce a significant decrease in the standard of vocational training and higher education (DIHT, 1994:29; cf. Müller, 1994). Ultimately, the Federal Parliament voted in 1994 against a change in legislative competences, albeit passing some of the committee's non-controversial recommendations. There are a number of other federal laws and regulations however, which have either a direct or indirect bearing on apprenticeship training, and therefore needs discussion.

Within the framework of the federal government's social and economic policies, the Employment Promotion Act of 1969 (*Arbeitsförderungsgesetz*; AFG) was introduced to foster economic growth by improving the country's employment structure and participation rates. The two main labour market policy aims were, and still are, to ensure the existence of an adequate and balanced qualified labour force and to secure and improve occupational mobility. Under the Act, the Federal Employment Office (*Bundesanstalt für Arbeit*) is charged with the responsibility of promoting initial and further vocational training and retraining for individuals, and to offer career guidance and related employment services to the public. A further task of this Office is to provide partial funding, where deemed appropriate and according to set criteria, for the expansion and equipment of inter-company training workshops (cf. BMAS, 1994a). The *Bundesanstalt* is located in Nuremberg and is a self-governing legal entity but placed under the supervision of the Federal Ministry of Labour and Social Affairs. The *Institut für Arbeitsmarkt- und Berufsforschung* (IAB) is the research institute of the Federal Office, and under the Act is legally responsible for conducting research into the labour market and occupations.

The Federal Training Promotion Act of 1976 (*Bundesausbildungsförderungsgesetz*) was formulated to provide study loans to individuals who lack the financial means to support themselves when studying at advanced vocational schools, evening secondary schools or for tertiary level qualifications. The amount payable under Act is dependent upon the type and content of the course plus other factors as well (Francke, 1986:84). In addition, the Young Persons Employment Protection Act (*Jugendarbeitsschutzgesetz*) of 1960, amended in 1976, regulates the working hours for apprentices and also their compulsory attendance at the *Berufsschule*, without a loss of or a reduction in the training allowance. The

Works Constitution Act (*Betriebsverfassungsgesetz*) of 1972 is significant in that it provides the legal basis for employee representatives to participate in a company's decision-making processes with regard to social, economic and human resources issues. But, in turn, they do not have the right to strike as they are legally obliged 'to work together in a spirit of mutual trust...for the good of of the employees and the establishment' (Sadowski *et al.*, 1995:493). In more specific terms, the work council has the right to advise management on issues relating to the planning and implementation of vocational training measures. The Act also confers consultation rights to the council on issues relating to staff training and the selection of apprentice trainer(s). The function of the work council is generally considered an important one, especially as it is in fact the second controlling body in industry training apart from the Chambers (Francke, 1986:78). On the other hand, it is widely accepted that the councils have only limited knowledge of vocational training development and that their main function is limited to ensuring that training is implemented according to the prescription (Sadowski *et al.*, 1995). Under the Works Constitution Act, work councils can be set up in any enterprise with more than five employees. But, according to Streeck *et al.* (1987:19), about half of all the firms with more than 20 employees have no work council, and in the smaller craft-based enterprises they rarely exist at all. Subsequently, more than one-third of all the employees do not have their interests represented by a council. The 1981 Vocational Training Promotion Act, which regulates the legal status, tasks and organisation of the BiBB, has already been referred to previously. The Act is also the legal basis for trade examinations plus assessor and provider accreditation which will be analysed in the next chapter.

THE ORGANISATIONAL FRAMEWORK

The concept of 'cooperative federalism' is central to both the coordination of and responsibilities in the German training system (Dauenhauer, 1981). The main bodies in the organisation of vocational training, including policy formulation, are depicted in (figure 7.2 below), which, however, does not do full justice to either the number of organisations involved or their relationships. According to Dauenhauer (*ibid*, p.v), at least several hundred industry expert groups are actively engaged in vocational training policy, contributing to an almost incomprehensible situation. The concept of *Neokorporatismus* ('neo-corporatism') is used in this respect to refer to organised interest groups, such as industry organisations, who have public responsibilities devolved to them by the federal state and are carrying out these tasks in conjunction with the latter (Streeck *et al.*, 1987:2; Hilbert *et al.*, 1990). Despite the fact that industry-led bodies are often criticised by, for example, the general public, academics and trade unions as to the extent they are able and allowed to influence government policy, it is the very existence of limited federal government intervention, free market initiatives and the social partnership approach, that comprises the dual system of vocational training work in Germany (Vajna, 1994:22). The federal state's role of limited involvement is rooted in history, codified in the Basic Law while the concept has been reinforced throughout the post-1949 tradition of consensus politics (see chapter 6). It also finds expression in the concept of social autonomy (*soziale Autonomie*), 'which implies an obligation for the state to let social groups manage their own affairs ('*Selbstverwaltung*') as long as they refrain from acting against vital general interests' (Streeck *et al.*, 1987:2-3). Thus the role of the federal state, as they see it, is restricted to a 'notary public's function' (Hilbert and Völzkow, 1990:195). Intermediary

organisations, on the other hand, such as the Chambers, employer associations and trade unions play a crucial role in the organisation and the policy development of initial trade training, and it is this particular configuration of joint responsibilities at all levels (national, sectoral and workplace) that has been institutionalised in Germany to prevent either a market or state failure in vocational training. The influence of the social partners, however, extends to other public policy areas and is legislated in labour law.

The industry and commerce sectors of the economy are represented at the national level by three different major organisations, *i.e.* the *Deutscher Arbeitsgeberverbände* (BDA), the *Bundesverband der Deutschen Industrie* (BDI) and the *Deutscher Industrie- und Handelstag* (DIHT). The BDI represents 34 economic interest groups and is mainly concerned with overall economic policy. The DIHT is the national body coordinating and representing the 83 regional Chambers of commerce. The BDA, on the other hand, represents 15 *Land*-organised employer groups and has a nation-wide membership of 46 employers' associations. The BDA, as an inter-sectoral confederation, is the employers' national body mandated by its members to deal with the trade unions and the federal government on social policy issues. The craft sector is organised along similar lines to the industry and commerce sectors in that it comprises one national body, the *Zentralverband des Deutschen Handwerks* (ZDH), which in organisational terms incorporates the *Deutsche Handwerkskammertag* (DHKT), 14 regional Chambers and 56 craft chambers nation-wide (Vajna, 1994:33). In the early 1970s these bodies in conjunction with a number of other employers' organisations set up the *Kuratorium der deutschen Wirtschaft für Berufsbildung*, which has been given the task of coordinating training policy for the national employers' associations. The 'social partner' or industrial counterpart of the above organisations is the *Deutscher*

Gewerkschaftsbund (DGB). In 1984, about 86% of the German workforce was represented by the 17 industrial unions affiliated to the DGB, while the remaining proportion was represented by unions representing employees and public servants, i.e. the *Deutsche Angestellten Gewerkschaft* (DAG) and the *Deutscher Beamtenbund* (DBB) respectively (Streeck *et al.*, 1987:6). Traditionally, the social partners have on purpose separated the

FIGURE 7.2

THE LEGAL-ADMINISTRATIVE STRUCTURE OF THE 'DUAL SYSTEM'

Source: Münch, 1991:51

policy spheres of industrial relations and vocational training in order to ensure that industrial conflicts do not negatively impinge on the mutually

proclaimed importance training has for and in a competitive high-wage economy.

Under the terms of the 1949 Basic Law, responsibilities for education policy is shared between the federal state and the *Länder*. The Federal Ministry of Education, Science, Research and Technology (BMBF) (6) has responsibility for the central overall co-ordination of education policy, powers which in general terms may be described as rather weak and complementing the statutory functions assigned to the Chambers and the *Länder* in training (Lauglo, 1993:64). However, according to Streeck and co-authors, 'the Federal Government makes the overwhelming majority of decisions on vocational training, but only after union and employers' representatives have given their consent' (Streeck *et al.*, 1987:13). Under the Act, the BMBF is required to co-operate with the *Länder* in the field of educational planning, for which purpose the BLK was established in 1970. With regard to the field of vocational training, the ministry is mandated to prepare new legislation for both non-institutional training and the development and organisation of initial and further vocational training, as well as to initiate measures deemed beneficial for the development of further education (Schaub and Zenke, 1995). Furthermore, the task of approving national training ordinances, which are legally binding for training undertaken in a specific occupational category, rests with the BMBF, but are issued by the relevant federal ministry in whose field the ordinance pertains (see figure 7.2 above). Lastly, the BMBF is also responsible for issuing regulations regarding further vocational training and the pedagogical qualifications of trainers (CEDEFOP, 1994b). The diagram shows that the BMBF, on behalf of the federal government, issues guidelines and ordinances directly to the competent bodies in vocational training (see below). In 1975 the federal

education and science ministry was charged with having responsibility for:

- the Vocational Training Act;
- basic questions of vocational training policy;
- the Federal Institute of Vocational Training (BiBB);
- issuing regulations for further vocational training and the teaching qualifications of trainers (Münch, 1991:56-7).

These responsibilities have been enlarged subsequently to include:

- the fostering of the position of both disadvantaged and gifted apprentices in the dual system, and
- the promotion of experiments and research in vocational training (Arnold and Münch, 1994).

The statutory functions of the Standing Conference of the Ministers of Education and Cultural Affairs (KMK) derive from the fact that responsibility for education and cultural affairs lies primarily with the *Länder*, as laid down in the 1949 Basic Law. The essential goal of the *Länder* is to ensure that through cooperation an acceptable level of comparability between the *Länder's* education systems is achieved. To this end, agreements are reached, joint statements made, and views and information exchanged (KMK, 1992a). The KMK further acts as an instrument of cooperation between the *Länder* and the federal government, for which a coordination committee was established in the 1970s to deal with vocational education and training issues. In 1972 the committee endorsed a joint protocol for the harmonisation of vocational school curricula and training ordinances (*cf.* Benner and Püttmann, 1992) (7). The only other committee dealing with vocational training in the KMK is a sub-committee of the School Committee (KMK, 1992a:9). The KMK issues

guidelines and ordinances to the individual *Länder* for implementation in the *Berufsschulen*, but they are not, as mentioned earlier, binding.

The Federal Institute of Vocational Training (BiBB) can in many respects be considered NZQA's counterpart, for which reason a brief organisational profile of the Institute is presented here while, in chapter 10, a comparative institutional analysis is provided. BiBB is a legal entity incorporated under public law and was set up in 1970 under the provisions of the Vocational Training Act. Its present legal basis is the 1986 amendment of the 1981 Vocational Training Promotion Act (BerBiFG) which requires it 'to carry out vocational training tasks' (BiBB, 1992). The Institute is directly accountable to the federal government and is placed under the supervision of the Federal Ministry of Education, Science, Research and Technology (BMBF). It receives funding from the federal state under the provisions of the Appropriation Act, which amounted to DM 42.7 million in 1992 (*ibid*) and has been estimated for 1995 at DM 47.7 million (BiBB, 1995:6). The Institute's head office is located in Berlin and a second office is in Bonn, where together a total of some 385 staff are employed, who are appointed to their positions as civil servants. Approximately half of the Institute's staff work as researchers (Heine-Wiedenmann, 1988). The official bodies of BiBB are the Executive Board and the General-Secretary. The former is the Institute's self-governing decision-making body and is 'the only statutory advisory body on education and training for the Federal Government' (BiBB, 1992:5). Its principal task is to advise the federal government on issues fundamental to vocational training and the Board therefore provides a link between vocational training research and political decision-making at federal level, while having important policy formulation and advisory functions itself (Heine-Wiedenmann, 1988).

Consensus, however, on major policy issues, such as the standardisation of training between the different occupations, is rarely achieved by all the parties involved. An example of the different views expressed on vocational training can invariably be found in the annual vocational training reports published by the BMBF which contains the views of the social partners and the recommendations of the Executive Board of BiBB as to the desirable direction of training policy and, moreover, includes the policy decisions of the Federal Parliament. BiBB's Executive Board, however, is said to have a more impressive record on passing consensus-based recommendations on training issues, such as the duration of vocational training (Streeck *et al.*, 1987).

The Executive Board has also been granted the power to make decisions on research projects proposed by the Institute's management, to approve BiBB's budget, and to issue public statements and give recommendations with regard to the organisation and future development of vocational training. The Board has a total membership of 53, consisting of employers', trade unions', and *Länder* representatives, each of which delegates 16 members to the meetings. The federal government is represented by five members who, however, have the right to pass 16 votes in total but is conditional on their reaching an unanimous decision. Both the Federal Employment Office and a national local government body have the right to be represented at the Board's meetings by one observer each but they only attend in an advisory capacity (BMBF, 1995d:33). Executive Board members are elected for a maximum period of four years and the chairman is nominated in turn from each of the four main groups.

The Research Board is a sub-committee of the Executive Board and prepares the submission of research programmes for their approval. These programmes are initiated and designed by researchers at BiBB and require

the endorsement of the General-Secretary before it can be submitted to the Research Board (see chapter 8). The *Länder* Committee is another permanent sub-committee, which is charged with the responsibility to coordinate training regulations and framework school curricula in the

BiBB's statutory functions, as specified in the Vocational Training Promotion Act, are:

- to co-operate in preparing training ordinances and other regulations issued under the provisions of the Vocational Training Act and the Craft Code;
- to co-operate in preparing the annual Vocational Training Report;
- to produce vocational training statistics;
- to support the planning, establishment and further development of group training workshops;
- to advise the federal government on vocational training matters;
- to conduct research into vocational training, the basis of which are research programmes approved by the Central Board;
- to promote and monitor trial projects;
- to maintain and publish a register of federal state recognised skilled occupations, and
- to examine and recognise distance vocational training courses, and give advice to their organisers (Münch, 1991:58-9; DIHT, 1992:112).

The above functions have been supplemented by a number of tasks as regulated under the Berlin/Bonn Law of 26 April 1994, which extends the BiBB's authority by including the following functions:

- to promote educational technology through research although research programmes need to be approved by the competent Minister;
- to participate in international cooperation in vocational training, and
- to recognise distance education courses under the terms of the Distance Education Promotion Act (BiBB, 1995a:7).

At the regional level in Germany, the Chambers are, under the Vocational Training Act, the 'competent bodies' responsible for administering and controlling in-company training. The Chambers'

statutory functions are based on the principle of subsidiarity, as promulgated in the Basic Law, and this gives the social partners a large degree of autonomy in carrying out their tasks in vocational training at local and regional level, without the intervention of either the federal or *Land* government. The Chambers have been charged with a wide range of responsibilities (see below) and are self-governing bodies under public law. In total eight different types of Chambers exist for the various professions and economy sectors (8), of which the chambers of industry and commerce and craft are, in economic terms, considered to be the most important ones. Membership is compulsory for those people operating a business and approximately 3.65 million companies are registered with the Chambers (DIHT, 1991:28). The Chambers are placed, but only in legal terms, under the supervision of the *Land* economics minister, who has a 'symbolic' power to intervene only in those circumstances when a Chamber is in breach of any law or statute it is governed by. According to the DIHT, the legal supervision requirement 'guarantees the self-administering character of the Chambers in terms of personnel, finance and organisation' and is considered to be a 'necessary prerequisite' for fulfilling their tasks (*ibid*, p.32). In practice, the Chambers are supervised by neither the federal nor a *Land* government and function autonomously, protecting the interests of the economic sectors they represent. The DIHT in particular plays a powerful role in the German social market economy and as a major interest group influences the direction of the federal government's economic policies.

The main statutory functions of the competent Chambers are to publish examination regulations, to advise training companies and apprentices on vocational training matters, to monitor the implementation of vocational training, and to accredit assessors and training companies. At a more specific level, the Chambers are responsible for running a trade

examination system, comprising intermediate and final examinations, determining the eligibility of apprentices to sit an examination and also to make decisions about the length of the training period, where appropriate. They also appoint examination committees and can set up a committee to resolve conflicts between employers and apprentices on issues relating to in-company training, when required. The magnitude of their task is reflected in the fact that every year a total of approximately 360,000 final trade exams are held in the Federal Republic (*ibid*, p.35). In addition, and under the terms of the Vocational Training Act, the Chambers also run advanced vocational examinations for national recognised occupations, such as *Industriemeister* and *Fachwirt* (see glossary), and are engaged in retraining courses and examinations. Moreover, they provide seminars and further education and training courses themselves. Another important function is their maintaining a register of vocational training, containing details of every training contract. In 1993, this register held more than 780,000 contracts. Prior to the introduction of the Vocational Training Act the Chambers had direct responsibility for training regulations, an influence over vocational content is now exercised by the national employers' associations.

Vocational training committees of the Chambers are established under the provisions of the Act and consist of 18 delegates in total, representing the two social partners and *Berufsschule* teachers on an equal basis, for a maximum term of four years. The teachers are allowed to attend in an advisory role only and are elected by the responsible authorities under *Land* law. Employers' representatives, on the other hand, are nominated by the Chamber whilst the local trade unions nominate their representatives. The committee's chairmanship alternates annually between a delegate of one of the social partners. Under the Vocational Training Act, the vocational training committee of a Chamber has

extensive powers. The committee, for example, has to be informed of all important issues relating to vocational training, such as changes to training prescriptions, new forms and methods of training, labour market developments and policy changes to general education, as they may have consequences for the structure and provision of trade training (Münch, 1991). The Act mandates the vocational training committee to approve the issuance by the Chamber of legal regulations relating to vocational training, *e.g.* the examination requirements for the final trade examination and to make decisions in cases where proposed expenditures are in excess of what has been budgetted for. The position of the Chambers and their vocational training committees in the organisation of and the decision-making process in vocational training is thus quite significant, in that their roles are not limited to making recommendations only but include the exercise of supervisory and regulatory powers.

The Vocational Training Act is also the legal basis for the existence of vocational training committees at the *Land* level which have been set up for the purpose of advising the *Land* government on all state-related vocational training issues. The committee is also legally authorised to foster cooperation between institutional education and on-the-job training with a view to ensuring that in the development of the public education system consideration is given to the consequences for in-company training in the dual system (BMBW, 1979:41). Recommendations made by this body are purely of an advisory nature and may gain political significance only when *Land* parliamentarians or the Education Ministry are prepared to support them. The committee consists equally of representatives by employers, workers and Land authorities; one half of the delegates representing the *Land* must be education experts, a stipulation to ensure that control is exercised over their legislated functions (Münch, 1991:54). It is possible for the social partners to use their participation in the *Land*

committees for developing the vocational school curricula at national level, but this seldom happens; the employers' associations and the trade unions have publicly stated that the *Land* committees only play a minor role in their schemes (Streeck *et al.*, 1987:17).

Lastly, the relevant *Länder* ministries, which is either the Ministry of Labour or the Economics Ministry, except in the Hamburg and Lower Saxony *Länder*, have the statutory power to monitor the Chambers' adherence to relevant legislation which, according to Münch (*ibid*, p.56), is merely a form of 'technical' supervision (see above) and also to approve trade examination regulations. The relevant ministry has further been charged with the task of assuming responsibility for overseeing the *Land* Committee for Vocational Training, for the financial promotion of vocational training in its *Land*, as well as appointing the members of the vocational training committees of the bodies competent for trade training in the industry, commerce and crafts sectors. Additionally, the relevant ministry is involved in issuing *Berufsschule* curricula although this requires the approval of both the Ministry of Education and the Economics Ministry. Thus the main functions of the competent *Länder* committees are of a supervisory nature and are a mechanism to ensure that the implementation of training complies with relevant legislation within the state.

CURRENT AIMS AND POLICIES

The present federal system of government in Germany consists of different but complementary levels of governance. The powers conferred to the federal state and the *Länder* in matters such as education and training are legislated in accordance with the principles of 'cultural sovereignty' and 'subsidiarity'. It is because of this complex structure of responsibilities that the aims and policies for vocational education and

training have to be analysed here from a perspective that takes into account the involvement of all the main parties in policy-formulation and decision-making, *i.e.* the federal government, the political parties, Federal Ministry of Education, Science, Research and Technology (BMBF), the national employers' associations and the German Association of Trade Unions (DGB) and the Executive Board of the Federal Institute of Vocational Training (BiBB).

A basic but much repeated policy statement of the German federal government is that all youth who desire to undertake an apprenticeship should be able to do so and for which, officially, there is no formal entry qualification requirement (BMBW, 1991b:15). This, however, has been a common historical practice and does not reflect newly established government policy. According to the BLK, Germany's vocational training policy aim is directed towards principally providing all youth with a 'qualified training' in the dual system, full-time vocational schools or in the tertiary sector (BLK, 1993:3). The social partners, on the other hand, are in fundamental agreement that this training should impart broad and flexible skills in which employers are interested because it enhances internal labour market mobility, whereas for workers these represent a means of income and employment protection. Consequently, there exist considerable common interests in vocational training and there is, in general terms, a basic agreement on the policy direction (*cf.* Weegman, 1992; Sadowski *et al.*, 1995:501). Characteristic of the German trade unions' attitude towards training is their commitment to improve the dual system in quantitative and qualitative terms and not to restrict its role to 'industrial demarcation'.

Of considerable concern to policy-makers and advisory bodies is the disturbing trend that the dual system is losing some of its functionality as the result of a number of interrelated factors. At a time when there is

evidence that the training commitment of enterprises is waning, industry is also experiencing a shortage of skilled workers (BMBW, 1994a), a situation which is further compounded by a shortage of *Berufsschule* teachers (Lange, 1995). Two factors in particular indicate that the dual training model is now a system in crisis. Firstly, there is an increasing social demand for higher levels of education which has a direct bearing on the pattern of educational provision in the tripartite secondary school system and, secondly, the low numbers of students entering upper secondary school which are a direct result of demographic developments (Tessaring 1993). The former FRG training model is furthermore being challenged by the consequences of European integration and German unification. Lastly, and associated with the above factors, the parties involved in vocational training, *i.e.* the social partners and the federal and state governments, generally tend to share the view that the dual system of vocational training is in need of reform so as to regain not only its 'former level of functionality' but, more importantly, achieve training efficiency and subsequent improved economic competitiveness. Underpinning this view is the key notion that human capital is a very if not the most important economic factor in the Republic (Buttler *et al.*, 1993:467; BMBF, 1995d:49; Kohl, 1993:7).

The political and academic discussions about reforming the dual system have been dominated by the intention of making apprenticeships not only an attractive option for young people to consider but also to promote it as a 'real alternative to university study' (BDI *et al.*, 1993:8). In order to achieve this aim, the parties involved have focussed on enhancing the flexibility of the training system in terms of access, provision and pedagogical differentiation, whilst endeavouring to put the status of vocational and general education on an equal footing (Deutscher Bundestag, 1990; *cf.* Schaumann, 1993). This latter issue is regarded by the

federal government as its central task in vocational training policy, a notion which is widely endorsed by the social partners as well as all the political parties (BMBW, 1994a; 1994b). This aim to increase the attractiveness of apprentice training will, however, only stand a chance of becoming successful when the labour market offers skilled workers interesting and adequate career opportunities. In this respect, the KMK made an important contribution in 1992 by formally equalising the status of the *Berufsschule* and the *Realschule* leaving certificates but, however, there is no automatic equivalence as special conditions apply (KMK, 1992b). More recently, the KMK publicly announced that it is currently investigating the possibility of granting vocational school graduates the right to enter *Fachhochschulen* and extending its agreements on the equivalence of vocational and general education to cover a wider range of types of school leaving certificates. In their deliberations, the notion and value of core skills in educational transfer has been deemed important by the KMK (1995a:87-89).

Vocational education and training policies in Germany, as elsewhere, are always being developed in relation to wider government policy aims and can be explained in terms of 'taxonomic' policy relationships (Dauenhauer, 1981:5). The broader set of government policies directly influences the direction of economic, social and education policies and these, in turn, either indirectly impact on vocational training policy through labour market policies, or have a direct effect on it as in the case of education policy. In concrete terms, this means that in Germany the aims of vocational training reform are geared towards the general aims of both general government policy direction and its economic policies. On the other hand, the provisions of the Basic Law are a legal guarantee for social justice and therefore are a cornerstone for the federal government's

social policies (Engel and Rosenthal, 1970:14); the latter explicitly stating that 'education, training and further learning are the basis for the personal and social development of individuals' (BMAS, 1994b:39). Thus the federal government in formulating its economic and social policies is required to adhere to the legislated aim of social consensus which is a contributive factor to the rather incrementalist nature and direction of policy-making in Germany (Schmidt, 1994:81).

Germany is currently experiencing an economic recession after a very short post-unification boom period. This has been caused by, among other factors, declining competitiveness and a weakening of the export markets, and is characterised by a high inflation rate and an unemployment rate of 8% for the old *Länder* and 19.3% for the new *Länder* (Statistisches Bundesamt, 1994c:76). Whereas unemployment rates increased in the former FRG *Länder* in all occupations, in the new *Länder* unemployment decreased only slightly (Bundesanstalt für Arbeit, 1994:87,141). The loss of competitiveness has been caused in part by the heavy unification costs (amounting to DM 400 billion in 1990-1993) to support incomes and reconstruction in east Germany (OECD, 1993a:10) and is, according to some, an indicator of an existing structural crisis rather than an economic trend (Körber-Weik, 1994:31). Economic recovery, therefore, is considered a priority policy aim of the federal government, which has, and will continue to have, a flow on effect on education and training policies.

The function and the purpose of the tripartite general secondary school structure in the German education system is presently largely uncontested in policy discussions as all the political parties support the current structure, with the exception of the SPD, which favours the comprehensive secondary school (SPD, 1989:28). Notably, there is a tendency to reinforce the distinctiveness of the different streams and

reform the *Hauptschule* in order to enhance its impoverished status in relation to the *Realschule* and the *Gymnasium* (CDU, n.d., p.19; FDP, 1990:145; BDI *et al.*, 1993). This intention aims to consolidate the prevailing German educational philosophy of '*Durchlässigkeit nach Leistung*' (achievement-based educational progress). National employer associations are convinced that the tripartite schooling system is catering adequately for those students wanting to change types of secondary school. On the other hand, they recommend that the *Gymnasium* be reformed and state that the teaching of core skills should have a more central place in the curriculum. Additionally, they advocate the inclusion of practical training in its curriculum (BDA, 1993; BDI, *et al.*, 1993).

In 1993, there were approximately 0.5 million *Abiturienten* studying at upper secondary level (BMBF, 1994:47) who basically had three choices at the end of compulsory schooling, *i.e.* to commence an apprenticeship, to enter the workforce or, lastly, to embark on a degree course in higher education. Although the *Abitur* is not a qualification designed for entering the workforce, 36% of *Gymnasium* graduates moved into employment in 1991 (Liesering *et al.*, 1994:13). In 1992, around 1.8 million students were enrolled in higher education and for the first time students outnumbered apprentices (*ibid*, p.40) (9).

In contrast to general secondary schooling, tertiary education has been the subject of reform proposals as it has been severely criticised for a number of reasons. First of all, graduates of the first degree university course, *e.g.* *Diplom* or *Magister Artium*, are entering the labour market normally when they are in their mid or even late twenties. This problem is exacerbated by the fact that a high proportion of students change courses or drop out altogether as well as a lack of adequate resourcing, which is related to the overcrowded universities (CDU, n.d.). Consequently, it appears to be a reasonable assumption that for these reasons university

study may not be an attractive option for a lot of *Abiturienten*. The trade unions claim that a reduction in the length of the first degree course is absolutely necessary, as is an improvement in its quality (Witte, 1994:85). Employer representative bodies, on the other hand, are specifically favouring the development of the *Fachhochschule*, because the applied nature of its degree programmes has, in their opinion, more direct relevance to the world of work (BDA, 1993:98). Secondly, they demand that private institutions be put on an equal footing with publicly funded higher education ones. In short, employers are becoming increasingly dissatisfied with the performance of the higher education system and are being supported by academics in their calls on the federal government to press on with reforms (Gardner, 1994; Phillips, 1995:36).

Growing social dissatisfaction with the lack of responsiveness of the education system to the needs of the economy, at a time of economic uncertainty, as well as its inability to respond to the educational needs of individuals and society resulted in Chancellor Kohl calling for an 'education summit' in November 1993. This was convened to reach decisions at federal and *Land* levels on education, training, higher education and research. Kohl publicly announced that this conference was an opportunity to 'discharge ballast' the Republic's education system had accumulated over the previous forty years and that 'German unification presented a good chance of achieving this by means of total restructuring' (Rohlf's and Schäfer, 1993:418-9). Previously, in 1992, a *Bund-Länder* Vocational Training Working Party, consisting of representatives of the federal government, the *Länder* and the social partners, had been established to make preparations for the summit by producing recommendations for consideration. Although the political outcome of the summit meeting was generally considered rather disappointing (Phillips, 1995:36; BMBW, 1994a:25), its apparent value nevertheless lies in the fact

that the education sectors had been subject to what appears to be a rigorous appraisal (BMBW, 1993a). Conference press releases by the Federal Education and Science Ministry unequivocally stated the federal government's position with regard to educational reform *i.e.* in higher education it aims to achieve increased efficiency and introduce curriculum reforms soon to improve the quality of learning, while expanding the *Fachhochschule* sector, as had been demanded by industrialists. With regard to vocational training the Ministry recommended that in principle it should be possible for *Meister* and *Techniker* to pursue tertiary level studies, as a proper bridge to tertiary education is lacking (*cf.* Pritchard, 1992). This view has been supported by a post-summit Vocational Training Working Party paper, stating that immediate entry to higher education courses is a desirable policy option or, alternatively, it should be made possible upon the attainment of bridging qualifications which need to be designed for that specific purpose (BMBW, 1994b:1-6). The same paper contains an extensive catalogue of agreed vocational training measures, responsibility for which has been allocated to the various interests groups in terms of developing implementation policy.

Political and academic discussions focussing on the creation of pathways for students in, and graduates of, vocational education and training are also pertinent and timely as the traditional advanced training routes for skilled workers have proven to be a rather underutilised further education option (Tessaring, 1993:153). Research clearly shows that there is a trend that *Fachhochschule* engineers and skilled workers holding additional industry- or enterprise-specific qualifications are being employed in increasing numbers in middle-level trade positions in the economy (*cf.* Drexel, 1994) (see chapter 9). Traditionally, the dual system of vocational training was the 'king's road' to skilled labour but without many career opportunities and further training options available (Kutscha,

1993:41). At times of dwindling numbers of new apprenticeship entrants, because of increasing social demand for higher levels of education, and low birth rate levels, the economic rationale for designing bridging qualifications and creating pathways for skilled workers becomes self-evident. However, the national employer bodies have clearly stated that they want the dual system to keep its independent character and do not wish to see it become a form of transition education (BDI *et al.*, 1993). Another important reason for policy-makers to create a more flexible system derives from the fact that the proportion of unskilled labour is about 14% of the age group of 20-30, or approximately 1.6 million people, and is considered to be unacceptably high (Davids and Kloas, 1994:61) (10). Differentiation of the dual system as a policy aim is also considered politically desirable by the federal government for social reasons. In achieving this, measures are being promoted to assist disadvantaged groups, *e.g.* foreign youths and handicapped persons, in gaining national qualifications (BMBW, 1994a:7-8; *cf.* BMBW, 1992). However, the need for qualified personnel is not confined to skilled workers only for Germany, despite the rising numbers of tertiary students, needs even more university graduates (Laermann, 1994:200).

As a consequence, the dual system is facing a number of significant challenges which are occurring in the face of social, economic, and technological changes that undoubtedly will influence and change its configurative relationship with the education and employment systems. In the dual system an inherent conflict exists between economic and educational values which is even to a larger degree present in the further education sector in the absence of external regulation. Further education and training is both economically and politically assuming greater importance in the light of the need for lifelong learning and therefore the policy issue of aligning the two sectors is gaining in prominence but,

simultaneously, posing a significant test for German policy-makers (Laermann, 1994; *Wirtschaft und Berufserziehung*, 1994). Another test of considerable proportions is for the Republic to 'complete unification' and ensure that sufficient training places are being made available to apprentices and to develop the training infrastructure in the eastern German states (Ortleb, 1993:48). Thirdly, the current structure and organisation of the dual system is subject to political and academic deliberations which are focussing on improving the system's functionality and viability through increasing transparency and differentiation but without compromising its standards. Lastly, reform is imminent as regards the quality of apprentice training. The CDU/CSU are demanding that occupational profiles need to be modernised more swiftly in order to meet technological developments and that overlong terms of apprenticeship be reduced (*Wirtschaft und Berufserziehung*, 1994:377).

Despite the problems and the challenges facing the German training model, there remains wide-spread political consensus about retaining the dual system (BMBW, 1993b:17; Lübke, Dorn, Haase, interviews, 1995) because, as some see it, there is no convincing alternative (DIHT, 1994:119). In general terms, the dual system enjoys a good international standing among the other main training models and in its own right. It is especially the close connection between the worlds of work and learning in the initial trade training system and the attributed comparatively low levels of youth unemployment that come to the fore as desirable components of any vocational training system. In the next chapters these issues, among others, will be analysed further.

NOTES

- 1 Münch (1991:47) estimated that 400,000 companies, or 25% of all the enterprises provide training, covering 60-80% of the total workforce.

2 The term 'social partners' is employed here to refer consistently to employer representative groups and the trade unions, and excludes the federal state and the *Länder*. The use of the named term does not mean or imply here that the relationship between employers and unions is harmonious at all times, as it may be more appropriate at times to refer to them as 'social adversaries'.

3 In 1992, there were 575,300 examinees sitting the final apprenticeship examination, including 60,900 in the new *Länder*, showing a pass rate of around 90% (BMBF, 1994:124).

4 The Federal Social Court considers the few federally recognised training occupations which require two years of training or less as semi-skilled occupations (Benner, 1992).

5 In Germany, a distinction is made between *Aufstiegsweiterbildung* ('career extension education'), which is taken to mean further vocational training regulated by either the *Land* or the federal state and leads to a national qualification, and *Anpassungsweiterbildung* ('job adjustment education'). In the latter category, courses are offered for updating one's occupational competence, such as a course in technical English or business computing (BMBF, 1995d:80).

6 The Federal Ministry of Education and Science amalgamated with the Federal Ministry of Research and Technology in 1994 to become the Federal Ministry of Education, Science, Research and Technology.

7 In the next chapter detailed attention will be paid to the protocol referred to.

8 Eight different types of Chambers exist, which are for the following areas: industry and commerce, craft, agriculture, lawyers, consultants and accountants, physicians, dentists, and pharmacists (Streeck *et al.*, 1987:17).

9 Tessaring (1993:136) contests the accuracy of these statistics and calculated that in 1990 around 67% of the age cohort commenced an apprenticeship, while 27% started a degree course in higher education.

10 Unskilled is defined here by the authors as those people who have neither attained a recognised occupational training certificate nor are in vocational training.

CHAPTER 8 STANDARDS, ASSESSMENT AND CERTIFICATION

THE GERMAN MODEL: AN OCCUPATION-BASED STANDARDS SYSTEM

The previous two chapters have already briefly alluded to the central importance of the concepts of 'occupation' (*Beruf*) and 'training occupation' (*Ausbildungsberuf*) in the German dual system of vocational training. Articles 25 of the Vocational Training Act and the Craft Code currently provide the legal basis for the design, development and implementation of nationally recognised training occupations in initial trade training. These training occupations not only achieve political, economical and industrial goals (Benner, 1977) but also contribute to the personality development of an apprentice (Benner and Püttmann, 1992).

More specifically, a training occupation constitutes a 'cluster' of skills and knowledge required for occupational competence at the skilled worker level. These regulations specify the name of the training occupation, the length of the training, the skills and knowledge required, *i.e.* the training occupation profile (*Ausbildungsberufsbild*), an outline training plan (*Ausbildungsrahmenplan*) and the examination requirements. Together these form the basis for an organised and uniform system of initial trade training (Der Bundesminister für Bildung und Wissenschaft, 1992:27).

The official responsibility for issuing, and revoking, training ordinances (*Ausbildungsordnungen*) rests with the responsible federal ministries, which is usually the Federal Economics Minister but also requires the approval of the Federal Minister for Education, Science, Research and Technology (Benner, 1977:68). Importantly, regulations will only be issued when the social partners have reached consensus which, according to Benner (*ibid*, p.74), is a moot point as agreement may be partly based on their settling wider industrial relations issues.

The German approach to training is characterised by the doctrine that occupational competence, *i.e.* the mastering of skills and knowledge required for the practice of a trade in the workplace, can only be acquired upon completion of a prescribed minimum period of concurrent on-the-job training and institutional learning. Time-serving therefore is seen as a pre-condition for the facilitation of skill transfer and worker mobility (Benner, 1977; Spelberg, interview, 1995).

The concept of 'occupation' assumes central importance in German society as its functions are considered to be multivalent (1). Firstly, *Beruf* is regarded as a conceptual instrument for designing qualification structures and work organisation and specifically, with regard to the former, a device for defining training content and examination levels (Reuling, 1994:1). Secondly, the social meaning attached to *Beruf* is of particular importance in Germany for it is both regarded an important social status indicator and a means for self-ascription, because 'we are defined by what our occupation is' (Paul-Kohlhoff, 1994:14). And lastly, because the concept of *Beruf* is intrinsically related to *Berufsausbildung* (literally: training for an occupation) one's economic position is achievement-based and pre-determined by vocational certification and occupational competence (Kell, 1982).

Consequently, the concept of *Beruf* is far more than just a reference to specific job activities and it differs in substance and purpose from the Anglo-American terms of 'profession' and 'job'. Reuling's (1994:2-3) elaboration of this issue is useful as he situates *Beruf* between 'profession' and 'job' on a continuum (2). A profession, he contends, is generally characterised by 'scientifically systematized professional knowledge and skills' and 'professional conduct oriented towards a standardized code of ethics', whilst a job would typically involve a narrow application of workplace- or company-specific skills (*ibid*).

Beruf, on the other hand, is seen by Reuling (*ibid*) as encompassing a combination of knowledge, skills and experience more 'formalised' and transferable than those required for a job and constitutes 'a currency for trading labour for money'. Moreover, and importantly, the concept is a didactical focus in vocational training. Thus the degree of formalisation of training content in national regulations (see below) and the focus on imparting broad-based training are regarded as being dominant features of the German *Beruf* concept, a construct that has evolved historically and serves to align the education and the employment systems.

However, the use and the validity of this notion is by no means uncontested in Germany. When defining *Beruf* as the application of specific knowledge, skills and experience required for the permanent employment of an individual (Schaub and Zenke, 1995:58), this concept not only draws criticism for its sole focus on full-time gainful employment (*cf.* Paul-Kohlhoff, 1994), but it appears also to be incompatible with international developments, such as in New Zealand (see chapter 3) and Europe, where a shift of focus to competence from qualification is occurring (Grootings, 1994:7).

In opposition to the New Zealand situation where the unit standards are metaphorically considered to be the 'building blocks' for new national qualifications, in Germany *Beruf* remains a central qualifications concept (3). Current academic debates, however, are focussing on the impact which trends in post-Tayloristic work organisation, such as lean production, may have on the way vocational training is organised and its content. Central to this discussion is the issue of whether the acclaimed increasing importance of core skills (*Schlüsselqualifikationen*) in reducing the intrinsic value and scope of the education and labour market concept of occupation (4).

Kutscha (1992b:539) believes that 'occupational specialisation' (*Verberuflichung*) will become more and more important in the future and

that 'occupations' are expected to adjust to the changing requirements of the labour market and therefore maintain their conceptual importance. He thus rejects the likelihood of any reverse developments. In a similar vein, continuing European integration is not expected to influence Germany's adherence to the *Berufs* principle (Ruhland 1992:291), and official support for retaining the concept includes both the federal government and the BiBB (Schmidt, 1993:143-4).

In the previous chapter the statutory functions of the BiBB have been described, which includes its key role in developing occupational curricula through research and its involvement in implementation projects. In carrying out its standards-setting work, the Institute is legally required to establish the aims and content of vocational training and to ensure their relevance in relation to technical, economic, and social developments. The standards, however, are minimum requirements which are formulated in conjunction with industry representatives as well as the social partners, and require the latter's endorsement.

Although initiatives for modifications to the training regulations usually come from the national employers' organisations, the central bodies representing the Chambers and the guilds and the trade unions (Raggatt, 1988), proposals can also be put forward by the *Länder* and BiBB (Der Bundesminister für Bildung und Wissenschaft, 1987a:7). The role of BiBB in this respect has been described by some as being closer to a 'service organisation' than an 'active creator' (Hilbert *et al.*, 1990:97), while others have pointed out that BiBB is not an institution conducting fundamental research, but merely engages in applied research in vocational training (Der Bundesminister für Bildung und Wissenschaft, 1987b).

In 1974, the Federal Vocational Training Committee approved a recommendation about criteria for the recognition of training prescriptions, which is currently still valid. The main criterion for

introducing new prescriptions is that there must be sufficient demand within the economy as a whole for new skill standards. These prescriptions need to be broadly defined and contain realistic and attainable training goals. Additionally, there must be sufficient demarcation between the training occupations. Moreover, the vocational training aim expressed in the prescriptions is the ability of the apprentice to reason and act independently in applying trade knowledge and skills. The term of training is set to be between two and three-and-a-half years while apprenticeship completion is deemed to form an adequate basis for continuing training and occupational advancement (BiBB, 1993b:17).

The development of training ordinances is regulated through the application of a procedural model that connects BiBB's research project process with the 1972 Joint Protocol on harmonising the content of training ordinances and vocational school curricula. This latter agreement was reinforced by a resolution passed by the Executive Board of BiBB in 1979 and last amended in 1984 (Barabosch, interview, 1995). This model comprises four stages from the time an application is filed with the competent Federal Minister until the moment a new ordinance is released in the public domain (see table 8.1). The application is appraised by the minister responsible and after its acceptance the Federal Institute is normally requested to commence the procedural process. The first stage, however, is usually initiated by the Institute and carried out within the context of a research project which, ultimately, requires the approval of the Executive Board.

BiBB has defined six vocational training research fields in total, which are: the development and determinants of qualification needs and utilisation; the effectiveness of education in everyday life, work and occupation; the demand and supply of vocational education; instruments for the structuring of vocational education; institutional, learn-organisational and financial aspects of the vocational training system, and

personnel in vocational education (5). For each of these six areas there is a working group. Within these parameters, BiBB's senior management team decides on the institute's middle term (2-3 years) thematic research emphasis, examples of which are the occupational integration of women, the structure of vocational learning processes and learning in the workplace (BiBB, 1995b:7-8). Longer term research planning is non-existent and deemed undesirable (*ibid*).

The establishment of research projects normally follows a procedure containing 11 steps, which appears to be the only standard research process at BiBB (Borch, interview, 1995). Projects, which are laid down in annual research programmes, are initiated by individual staff members who have considerable freedom in conceptualising and undertaking them and usually discuss their ideas with colleagues before approval is sought from their head of department (Schwiedrzik, interview, 1995). Upon endorsement, the project idea is formally discussed in the relevant working group which other staff can attend as well. After this step, a draft project design is sent to the Institute's Head of Research for consideration, followed by an internal discussion of the proposal by the Head of Research and the heads of the research and coordination departments.

In an open project conference the project initiator and project leader meet with staff and management to further discuss under the chairmanship of the Head of Research the content and aims of the research methods for the new project; this also includes a deliberation of the timeframe and possibilities for internal and/or external cooperation. After this stage, the project proposal is referred to the Vocational Training Research Sub-Committee which has the task of submitting the project for decision-making to the Executive Board. The role of the sub-committee in research planning is significant as it appraises not only the project's likely acceptance by the Board, and may recommend alternatives or changes to

the design to achieve this, but it also analyses the new project's intermediate and final reports (Schwiedrzik, interview, 1995).

It is customary for two external vocational training researchers participate in the sub-committee's work. In the case of the Executive Board approving the project, the Federal Ministry of Education, Science, Research and Technology needs to endorse it after which detailed project planning takes place and the project work commences (BiBB, 1995b:3-4).

The initiation of new training ordinances or the reform of existing ones frequently derives from project work done by BiBB staff (Heine-Wiedenmann, 1988). This forms an important part of the standards-setting process as the political and 'academic' acceptance have been vetted in a rather lengthy procedure. This point has also been the subject of criticism in an external evaluation of the research and economic efficiency of the Institute (Der Bundesminister für Bildung und Wissenschaft, 1987b). The first procedural stage for developing training ordinances (see table 8.1 below) is followed by the research and development phase in which BiBB takes a comprehensive survey of the occupation field under research, including an analysis of the relevant skills and knowledge to be imparted and curricular details. Three different types of training occupations exist which influences the selection of the research approach. There are training occupations without specialisations (*e.g.* joinery) for which the content and the implementation of the ordinance are equally applicable to all apprentices, including standardised examination requirements. Those with vocational emphasis or specialisation (*e.g.* automotive engineering) are regarded as a single training occupation but have a content emphasis for a part of the course which is reflected in the outline curriculum plan but not in the training occupation profile. Apprentices acquire in their last year of training different skills as a result of trade specialisation. The specialisation component may not comprise more than one-third of the overall training programme. And finally, occupations where training is

delivered in successive stages which are both complementary and progressive in terms of trade specialisation. Each stage, however, can be concluded by sitting a trade examination after which one can enter employment or pursue training at a more advanced level. In terms of vocational content, the stages system combines allied training occupations in a single ordinance, of which the first stage is the foundation phase with a common training aim and content (Benner, 1995:52-5) (see for example Appendix 3).

BiBB particularly refrains from using methods derived from work organisation science as these are deemed inappropriate for developing training ordinances because a curricular perspective is lacking. For that reason, a specific model has been developed and applied that takes into account the whole work situation in which an occupation and its work activities are embedded. Hence, the knowledge, skills and attitudes required for initial trade training in a particular occupation are contextualised in the setting of the overall work conditions and the specific work demands and actions (Gärtner *et al.*, 1981:1). The model used by BiBB comprises four components, *i.e.* (1) problem analysis, (2) case study, (3) representative task analysis and (4) evaluation and curriculum design.

It is important at this juncture to mention that there is no single standard procedure for either reforming existing or establishing new training ordinances as different occupations and occupational fields require a different combination of methods and procedures (Krischok, personal communication, 1995; Borch, interview, 1995). The empirical-pragmatic nature of regulating training occupations reflects the task required of the Institute by the federal government, *i.e.* to ensure that consensus is reached between the social partners at the end of the

TABLE 8.1

PROCEDURAL MODEL FOR DEVELOPING TRAINING ORDINANCES		
PROCEDURAL STAGES	AIMS OF STAGES	COMMITTEES
1. Research and development	Recommendation for decision	Executive Board BiBB
2. Preparation	Design of project application, incl. catalogue of skills & knowledge	'application meeting' with Expert Minister, Expert & <i>Länder</i> Committees and 'Labour circle'
3. Development and coordination	Formulation of training ordinance and outline curr. drafts and content alignment	Coordination-, Federal Expert-, <i>Länder</i> Outline Curriculum- and <i>Länder</i> Commts. Executive Board BiBB.
4. Issuing phase	Training ordinance issued by the com-outline curr. plan by the Education Ministers of <i>Länder</i>	Coordination Committee

Source: Heine-Wiedenmann, 1988:27

procedure and to provide assistance by conducting applied research (Borch, interview, 1995; Der Bundesminister für Bildung und Wissenschaft, 1987b). BiBB researchers cooperate with trade union and employer experts in occupation-specific expert committees, and may provide a scientific perspective to the job at hand. Blötz (interview, 1995) sees BiBB's role in these committees as one of 'moderating' the views

expressed by the social partner experts for the purpose of arriving at a mutually acceptable position on the design of a training occupation.

In analysing the requirements for a new or revised occupation, data is gathered on technical, economical and social developments relevant to the spectrum of specific work activities and an insight is gained on the work and training situation by industry visits. In practice, it should be mentioned, only a relatively few new training occupations are being developed since in most cases existing ones are being reformed (von Bardeleben, interview, 1995). The statistical material obtained is used to produce training and occupational matrices that are discussed with both enterprise and non-enterprise subject experts in order to clarify the skills, knowledge and attitudes requirements for an occupation. On the basis of this, work hypotheses are formulated which usually are tested in the remainder of the procedure.

However, it can be decided to progress directly to the evaluation and curriculum design stage (Gärtner *et al.*, 1981:1). Alternatively, case studies are undertaken to assess empirically the hypotheses in typical but differently organised workplaces (Benner, 1995) and which form the basis for extracting all the 'qualification' (6) requirements; from this the training content is drawn by means of structural observation and questioning. The validity and reliability of these qualitative methods are enhanced by using nine categories, such as work organisation and implementation, to classify 'workplaces' suitable for research purposes (Heine-Wiedenmann, 1988:27). Thus the qualification's basis for an occupation is not deducted from the whole of the work situation, although this is taken into account, but foremostly derives from work-related tasks from which the knowledge, skills and attitudes are defined.

Central thus to the aforementioned steps is the explicit focus on work behaviour. The findings obtained from the case study form the basis for and are complemented by a task analysis method for which a

questionnaire is used. This method's specific purpose is to establish a comprehensive catalogue of data from which the curricular elements in the last stage can be formulated and which, in turn, form the basis for drawing up specific training plans (Rösch, 1987). In the evaluation and curriculum design phase, the training content is being selected, the subject content and timetable structured and a draft training occupation concept developed that is composed of the structure of the training and the examination requirements, the designation of the occupation, and the occupational profile (BiBB, 1993b:19).

It is particularly important that the 1974 recognition criteria have been complied with in this process and, moreover, that the details are formulated in such a way that they cannot be misinterpreted yet, on the other hand, are not too restrictive and allow for future application. In a meeting with the competent Minister, usually the Federal Economics Minister, a decision is made on whether to discontinue the process or to proceed in updating an existing or developing a new training occupation. The length of the second stage, the application preparation, amounts to six months, while there is no fixed time limit for BiBB to complete its research and developmental work in the first procedural phase (Benner and Püttmann, 1992:58).

The Coordination Committee of the KMK decides whether to accept the project application. In the case when its decision is favourable, the third phase commences in which BiBB, after being issued a directive from the competent federal ministry to participate in this process, further develops the draft training ordinance which it is obliged to do in cooperation with vocational training practitioners who are nominated by the respective social partners. Normally, BiBB representatives chair these 'federal' meetings. The *Länder* experts, on the other hand, establish a draft outline curriculum plan which is discussed by the KMK's Sub-Committee for Vocational Education.

Progress made on either side is, at this stage, independently discussed in separate meetings at which, however, one member of the other party attends, but who may give advice only. In a joint meeting, or meetings, the training ordinances and the vocational school curricula are aligned in terms of content and timetable requirements. After this step, both the *Länder* Committee of BiBB and the social partners are informed of the results attained so far with regard to the training ordinance and the curriculum plan, respectively. The former discusses the results and makes a recommendation to the Executive Board of BiBB which, subsequently, takes its own decision on the issue.

The social partners are considered to be the dominant decision-makers at the Institute's Board, not the federal state nor the *Länder* (von Bardeleben, interview, 1995). This is reflected in the fact that if the Board takes a positive decision this is normally regarded as a signal for the federal government to accept the training occupation (BiBB, 1993b:22). With regard to the proposed outline curriculum plan, the social partners issue a statement as to their views on the matter. The length of the development and coordination phase is set to be 12 months.

The last phase in the process of developing a training occupation and its alignment with the *Berufsschule* curriculum commences when the Coordination Committee in its meeting 'officially' endorses the obtained results. The enactment of the training occupation is then announced in the *Bundesgesetzblatt*. The outline curriculum plans, which are purely administrative regulations, require unanimous agreement by the KMK (CEDEFOP, 1982:29). It is of interest to note here that the degree of co-operation between the *Länder* in developing these *Berufsschule* plans is being perceived, by some, to surpass any joint efforts made for other school types (Holland, 1987:41). If adopted, they have the status of a recommendation for the *Länder* Ministries of Education only.

TABLE 8.2

CURRICULUM ALIGNMENT BY PROVIDERS, LEVEL AND PARTICIPATING BODIES			
Vertical level	Horizontal Alignment		
	ENTERPRISE		BERUFSSCHULE
Federal	Training Ordinance	Joint Protocol	Outline Curriculum Plan
Land	Outline Training Plan	Alignment possibilities between Educ. Ministries + competent bodies	Curriculum
Local	Training Plan Individual Enterprise	Teachers and trainers	Teaching Plan Individual School

The *Länder* may either accept a plan in full or make alterations to fit Land-specific needs and subsequently use it as a basis for the implementation of the *Berufsschule* curriculum. The training ordinance and the outline curriculum plan are then jointly published in the *Bundesanzeiger* as well as in KMK publications. The completion of this two-months stage marks the end of a relatively complex process for setting occupation-based standards. Table 8.2 schematically presents the process adopted for aligning vocational curricula through the development of training ordinances and their modifications at subsequent levels.

In the mid 1980s, a group of external experts evaluated, among other aspects, the procedures applied to and the results obtained from BiBB's work in developing occupation-based standards. They praised the Institute's research work for its efficiency and, furthermore, noted that the released training ordinances had virtually been uncontested (Der

Bundesminister für Bildung und Wissenschaft, 1987:109,118). In a more critical note, however, the expert committee commented that BiBB researchers should strengthen their contact with training practitioners in order to increase their understanding and knowledge of economic and industrial changes. They felt, also, that the Institute generally should operate in a less bureaucratic way.

In addition, the experts recommended that research projects and outcomes be evaluated continuously (*ibid*, p.14) (see below). Moreover, they pointed out that the process for developing training occupations is too long but, at the same time, asserted that the consensus axiom underpinning that procedure is an essential feature of the dual system and should be retained (Pampus and Benner, 1988; Pütz, 1995). Employer associations also are critical of the average duration of three to five years it takes to concurrently revise training occupations and outline curriculum plans and are pressing for a more efficient and shorter process to be put in place (*Position*, 1994:14) (7).

In clarifying BiBB's position on this issue, Benner and Schmidt (1995) basically agree that the current procedure can and perhaps should be improved upon. They refer to the federal government's education policy of progressively reducing the number of training occupations to a relatively small total that is to serve as a 'qualification' basis for the more than 20,000 identified work tasks identified at skilled worker/- employee level (8). They furthermore call attention to the notion that any restructuring of the training occupation procedure requires a commitment to act from all parties involved to establish a revised and more responsive system.

Moreover, they state categorically that the reform of vocational content in the 1980s has brought about increasing flexibility in the training prescription as the learning objectives and examination requirements have been formulated in such a way that they directly relate to the occupational

tasks and functions, and not to the application of prescribed procedures and work methods (*ibid*, p.6). Under the provisions of the training prescription for chemical laboratory workers, for example, an apprentice's relevant prior learning and/or work experience may be taken into account, and where deemed appropriate the number of teaching subjects reduced (Benner, 1977:48).

The process of harmonising vocational content for in-company training and institutional learning is inherently fraught with some difficulties due to the diverging prime aims of the two types of provider and despite their having been assigned a common educational task in the dual system under the Vocational Training Act (Benner and Püttmann, 1992:10). Vocational training, consequently, has become an 'educational' category, placed at senior secondary school level and linked to not only economic and labour laws and policies but also to education policy. It is the task of the *Berufsschule* to teach general and vocational subjects while, in doing so, having particular regard to the demands of the world of work (BMBF, 1995d:88). It is the school's function to complement workplace learning and training (*cf.* Nikolaj, 1993) but in terms of status it is regarded as an unequal partner in the dual system (Wittwer and Pilnei, 1986).

The 'demands' placed upon the *Berufsschule* are broadly specified in outline curriculum plans which largely derive from and have been established to support the aims set in the training ordinances and the occupational profiles which are exclusively designed by BiBB and the subject experts of the social partners. Therefore, the dominant vocational content specification in the dual system is the occupation-based standard to which the vocational school curriculum is to be adjusted (Pampus and Benner, 1988). This domination is furthermore expressed by the fact that although the examination requirements for the training occupation are specified in the ordinance and institutional learning, being proclaimed an 'equal' part of training in the dual system, they are predominantly

assessed and reported against the occupational examination prescriptions (see below).

The training occupation, to put it differently, is a generic 'vocational curriculum' concept which assumes central importance in the formulation and development of curriculum policy by the representatives of the federal government, the *Länder* and the social partners, but lacks any input from neutral subject experts and university researchers in the committees set up for vocational content harmonisation (Dauenhauer, 1981). Nikolaj (1993:183) is critical of the fact that BiBB's role in this process is confined to horizontal-level alignment only (see table 8.2), by which he implies that the Institute's involvement in vertical alignment, or that of another body, may be desirable in order to achieve better results. Furthermore, he points out that the 'horizontal' process is marked by the exclusion of adequate control measures (*ibid*).

A comprehensive vocational curriculum that encompasses institutional learning and workplace training is considered to be an ideal by Benner and Püttmann (1992:14) yet hardly an attainable one because of the different legal foundations that govern training ordinances and the outline curriculum plans. In the mid 1970s, however, an attempt was made to align the two curricula by introducing the 'harmonisation grid project', which was developed by the *Länder* Committee of BiBB (Nikolaj, 1993:171). The project failed to achieve its aim as the codification and assignment of educational aims to the various stages of learning in complementary but different provider settings proved to be too difficult a task (Benner and Püttmann, 1992; Nikolaj, 1993).

As a result of this, a more pragmatic approach to the allocation of educational content and aims to these learning places has prevailed ever since. This approach is distinguished, as discussed, by the development of separate curricula, which are subject to harmonisation efforts in a later stage through a prescribed coordination procedure. In general terms, this

method can be criticised for two different but related reasons. First, there is a 'compulsion' for those parties involved at decision-making level to achieve consensus after both the federal and *Länder* curriculum working parties have produced their respective ideal-typical plans. Second, there appears to be an overemphasis on the administrative aspect of the alignment procedure which is a prohibitive element in the attainment of desirable and/or necessary didactical and curricular improvements (Benner, 1977:104; Nikolaj, 1993:185).

An additional concern is the current disparity between the training ordinance and the outline curriculum plan for the trade of businessman (retailing), which is one of the few existing two-year apprenticeships, in terms of content alignment (Barabosch, interview, 1995). At present, approximately 65,000 apprentices are being trained for this occupation (Pütz, 1995:46). The social partners are in disagreement over whether or not to change this training course to a three year programme, a reform measure favoured by the DGB but obstructed by the employers. As a consequence of the social partners being unable to reach consensus on reforming the training ordinance - which was last revised in 1978 - the *Länder* have taken the unusual step of unilaterally updating the corresponding outline curriculum plan, which they finalised in 1994. Thus although consensus is a legal requirement and a guiding principle for the organisation and development of vocational training in Germany, it is not always achieved because of political reasons. But even in the case of an agreement on the setting of occupational standards, the consensus between the parties may have been reached at the level of a lower common denominator. The standards, for example, could have been set at a more demanding level instead of focussing on their development for and implementation in the training programme of the average enterprise (Krischok, interview, 1995).

TEACHING AND LEARNING: A NEW EMERGING PARADIGM

The reform of vocational content in the German training system, which had the support of all the interested parties and was initiated in the 1980s, has great importance as for the first time a large number of trades in one sector of the economy, *i.e.* the metal engineering trades, were reorganised over a complete field (McDerment, 1995) (see also Appendix 3). This shift in both the organisation and didactical focus of apprentice training would be used subsequently as a basis for reforming training occupations in other fields (DIHT *et al.*, 1992). Underpinning this significant departure from practices that had prevailed prior to the mid 1980s (see chapter 6), was the economy's need to adequately respond to an escalating change in technology by means of enhancing the flexibility in training and work organisation.

The modern tradesperson was (and is) thus required to be a versatile skilled worker capable of independently planning, implementing and controlling their own work. The 'qualification' (4) requirement for achieving this aim is seen by the DIHT/Gesamtmetall/ZVEI as not just the sum of skills and knowledge but also includes social and personal competences. The explicit aim that underpins this integral 'qualification' concept is for apprentices to achieve *berufliche Handlungskompetenz* ('occupational competence') (9) through work-focussed institutional and workplace learning (*ibid*; cf. Bunk and Zedler, 1986). The emphasis on occupational competence in vocational education, however, is not a new trend because the German Education Council had already promoted concepts similar in content and purpose in the 1960s and 1970s (Bernhardt, 1993; Uhe, 1994).

Central to the concept of *berufliche Handlungskompetenz* is its 'action orientation' (*Handlungsorientierung*), which presupposes the learning of that action (*Handlungslernen*), and focusses in its application directly to real-life situations (Bunk and Zedler, 1986:8). According to Ebner (1992:34-

6), *Handlungsorientierung* should not be conceived as a uniform didactical concept because different meanings are taken to derive from it. Any attempt, therefore, to clarify this concept ought to start from a premise supported by behaviour regulation theory that, in simplistic terms, views individual behaviour (or human action) as the connecting element between an individual's mental processes and his or her environment. Thus behaviour without thinking is reduced to reaction while thinking not followed by action can only be regarded as merely contemplation (*ibid*, p.45; Flothow, 1992).

In advancing these notions, human action is considered to have a cyclical structure that consists of four stages, *i.e.* aim formulation; planning; implementation and control/evaluation which, in principle, is applicable to every single human action. As it mostly constitutes a 'conscious, targeted and reflected activity' (Ebner, 1992:45), 'action learning' (*Handlungslernen*) is a significant component of and stimulus for human action and, hence, deemed to be a requisite condition for achieving occupational competence in particular (Schulz, 1989:88-91; Bunk, 1994:11).

In conceptual terms, *berufliche Handlungskompetenz* can be seen as both a 'qualifications' and a 'competence' term. The former notion, in the traditional German sense, denotes the combination of skills (*Fertigkeiten*), knowledge (*Kenntnisse*) and abilities (*Fähigkeiten*) which are required for mastering the demands placed upon an individual in his or her job, as well as in everyday life (Schaub and Zenke, 1995:287). The theoretical value of this concept appears to have lost some of its value as it is representative of an outmoded training and work organisation paradigm that was particularly characterised by a relatively strong division not only between education and training, but also between the two main providers in the dual system, *i.e.* the *Berufsschule* and the workplace.

Kompetenz ('competence'), on the other hand, can be described as 'those personality characteristics that are important in dealing with the

attained 'qualifications' (Uhe, 1994:2). It is within this context that *Schlüsselqualifikationen* ('key qualifications') are assuming central importance in education and employment (see below). *Kompetenz*, furthermore, is an outcome that can only be acquired after a long and intensive learning process and 'can only be retained through the procurement of new skills and knowledge within one's occupation' (Projektgruppe Schlüsselqualifikationen in der beruflichen Ausbildung, 1994:110), thereby ensuring its relevance and currency.

A publicly accessible listing of definitions for key concepts in vocational education and training has not been produced by BiBB to date since this would constitute, in the view of Schwiedrzik (interview, 1995), an 'unnecessary commitment' because of the changing social, technical and political realities. However, *berufliche Handlungskompetenz* has been defined by another BiBB official as the 'individual prerequisites for achieving certain goals' (Franke, interview, 1995). A more useful definition nevertheless is to view it as

...the ability and willingness of people, in occupational situations, to act objectively and expertly from a personalised viewpoint while having regard to their social responsibilities; which means to independently solve problems on the basis of appropriate action schemata, to evaluate the results and further develop the repertoire of action schemata (Bader, 1989, quoted in Eckert, 1992:56).

This definition clearly shows a paradigm shift in that skilled workers and apprentices are now required to have a different set of skills and attributes for practice within an occupation than what prevailed before. The definitions provided above both indicate, although in different degrees, the increasing importance of flexibility, individualisation, independence and self-direction in achieving goals in training and work. In general terms, the attributes which are deemed relevant to both the 'qualifications' and the 'competence' concepts have become blended in one single educational notion; i.e. *Ganzheitlichkeit* ('integration').

Berufliche Handlungskompetenz now can be analysed from a dimensional perspective, each part of which, individually and collectively, represents and constitutes that 'unity', and which is expressing the interrelationships between society, the individual and the object of training or work. Its main dimensions, or components, are 'expert competence', 'social competence' and 'humane competence' (*Fach-*, *Sozial-* and *Humankompetenz*, respectively) (see figure 8.1 below). Expert competence is the ability and willingness to work independently, expertly and methodically on a task and to evaluate the outcome achieved. 'Social competence' is the ability and willingness to work with others in a rational and responsible manner, whereas 'humane competence' refers to one's ability and willingness to gauge opportunities and overcome problems in occupation, family and public life, assess these and draw from one's personal qualities and strengths a 'life plan'.

These dimensions are complemented by 'method competence', 'learning competence' and 'language competence' (*Methoden-*, *Lern-* and *Sprachkompetenz*, respectively), which are all an inherent part of each of the three main dimensions. Learning competence especially is assuming a significant role in the above interactive relationships because without (lifelong) learning competence cannot thrive (Bader and Ruhland, 1993; Eckert, 1992).

The emerging integrative model, as depicted below, is a 'new pedagogical paradigm' (Lipsmeier, 1989:142) and markedly departs from conventional learning and teaching practices. It is characterised by an intentional, gradual move away from:

- classroom-based teaching and a student-teacher role separation to project education and a blending of roles;
- taxonomies of learning objectives for the cognitive, affective and psychomotor domains to integrated concepts in which rational learning is counterbalanced by attributes, such as intuition and independency;

- differentiated teaching plans to integrated schemes, and
- tripartite schooling system to the *Gesamtschule* (*ibid*, p.141; Seitz, 1990:734).

Although this latter point may be desirable, at the present time it is a politically unattainable goal in the majority of the German *Länder*. With regard to conventional classroom teaching this method is still the most common teaching form in the school and training (Projektgruppe Schlüsselqualifikationen in der beruflichen Ausbildung, 1992:76). Lipsmeier (1989:145) states that the new training concepts at the time are more frequently used in the workplace than in the *Berufsschule* (*cf.* Rützel, 1993:321). The new paradigm furthermore promotes

- students actively participating in and shaping the learning process themselves;
- bridging the division between theory and praxis in that learning process;
- the ability not only to understand and reflect, but also to act in order to bring about change;
- cooperation as a basic human condition (Lipsmeier, 1989:143).

This new focus in vocational education and training, however, is not uncontested and issue has been taken by some academics as to whether *Handlungslernen*, especially in the *Berufsschule*, would represent a realistic alternative for traditional teaching. Arnold (1990:30), for example, makes the general point that *Berufsschule* teachers tend to be critical of 'action-oriented' learning because it requires time and sufficient resources to adjust to this new model and make it work. But he argues that traditional teaching practices are particularly inadequate since they are based on a 'methodical monostructure', and tend to neglect the realisation of 'emancipatory learning objectives' (*ibid*, p.32).

The conventional teaching approach, conversely, is criticised because curricula usually tend to be structured cognitively to fit assessment and control purposes. 'Action orientation' in vocational teaching, as a result, may likely negatively influence the teacher's domination of the learning process (Pätzold, 1992; Ebner, 1992). Arnold (1990:35) draws attention to an important point in stating that vocational education based on the concept of 'action learning' is process-oriented learning that can be characterised by the following three features: students are active participants in the learning process; new learning content must be built upon sufficient foreknowledge; and learning is most successful when the students are conscious of their goals and have realistic expectations (Dörig, 1995:122).

Thus whereas a conventional outcome-focussed teaching and learning approach stresses the achievement prescribed norms, the new process-oriented approach focusses on the attainment of that norm in particular through independent and reflexive learning which is applied throughout the educational process. Successful integrative learning takes place, it is believed, only when there is a sufficient degree of learner/learning autonomy in that process and which, subsequently, enhances the further development of *berufliche Handlungskompetenz* (Schneider, 1991; Pahl, 1989; Höpfner, 1992).

This new didactical movement in vocational education and training enjoys considerable support from all the major role players involved and their approval of this development is not only reflected in both the new and revised training ordinances, e.g. the metal engineering occupations, but also in the outline curriculum plans of the KMK. These guidelines make reference to the need 'to allow students to make decisions independently in the learning process and also act upon them accordingly' (Lipsmeier, 1989:144). As a result of these developments, the role of the *Berufsschule* in the dual system has to change significantly because its

traditional task of 'only' teaching trade knowledge is no longer deemed sustainable in a modern society in which increasing coordination between the *Berufsschule* and the enterprise is becoming more and more desirable (Nikolaj, 1993:141).

Greinert (1994b:393) affirms that the teaching of skills and knowledge no longer can be considered as provider-type specific. He further makes the point that the increasing importance of cognitive skills in apprentice training has not improved the position of the *Berufsschule* as a place of learning, contrary to what perhaps could have been expected. Greinert asserts that the *Berufsschule* needs to re-position itself within the organisational structure of the dual system which, in his view, can be achieved by means of three measures, *i.e.* an organisational redesign which is to accommodate teaching a heterogeneous student population; an innovation of both curriculum content and teaching methods; and a different role and higher professional standards for teachers (*ibid*, pp.393-4) (see also below and chapter 10).

SCHLÜSSELQUALIFIKATIONEN: CONCEPT, PURPOSE AND PRACTICE

The notion of *Schlüsselqualifikationen* ('core skills' or 'key qualifications') was introduced in 1974 by Dieter Mertens, then director of the Nuremberg-based Institute for Labour Market and Occupational Research (IAB), who was critical of the responsiveness of the education system to the needs of the employment system. He claimed that 'key qualifications' were a solution to two specific problems, *i.e.* that of not being able to adequately forecast the 'qualification' needs for skilled workers in the industry, commerce and craft sectors in the light of rapid technological and structural changes, and that of the increasing rate of decline of the currency of specialised knowledge and skills, which he saw

as positively correlated with its closeness to praxis and negatively with its level of abstraction (Mertens, 1974:39).

By introducing the notion of *Schlüsselqualifikationen*, Mertens not only intended to reform vocational content but also promoted the view that apprentices (and the workforce) would attain higher levels of abstraction of knowledge and skills. Its introduction was expected to contribute also to the accomplishment of occupational despecialisation (Laur-Ernst, 1991) or a desirable degree of broad-based training. Dieter Mertens defined 'key qualifications' as

...those skills, abilities and knowledge which are not immediately and strictly related to certain practical activities but are suitable for a) a whole range of positions and functions as alternative options at the same point in time and b) coping with a sequence of (mostly unforeseeable) changes and demands in the course of life (*ibid*, p.40).

He postulated that four types of 'key qualifications' exist which he considered to be suitable for an almost indefinite range of work functions and jobs and which he, subsequently, deemed to be a necessary means for safeguarding flexibility and mobility in the light of an uncertain (labour market) future.

The four types he identified: 'basis qualifications' (*Basisqualifikationen*) were: higher order functions such as analytical, logical and critical thinking which can be applied in a 'vertical' sense (10) to the specific demands of an occupation or society; 'horizontal qualifications' (*Horizontalqualifikationen*), the knowledge about and the ability to retrieve, process and interpret data which, according to Mertens, are 'horizon broadening' skills; 'width elements' (*Breiterelemente*) which are skills and knowledge in, for example, industrial safety required in the different occupational fields; and 'vintage factors' (*Vintagefaktoren*) which are to cancel out intergenerational differences in educational knowledge people

have as a result of on-going curricular developments through the delivery of specific courses.

The potential value of Mertens' hypothesis derived from the belief that '*Schlüsselqualifikationen*' were to become an instrument for educational planning and flexible human capital formation (Arnold, 1996:11) a notion which formed the foundation for its legitimation (cf. Reetz, 1989). The implementation of this approach would see the general secondary school and the *Berufsschule* imparting 'key qualifications'. A similar idea, however, had been promoted by the German Education Council in its 1970 *Strukturplan* which declared that individuals needed to possess 'general abilities' (*allgemeine Fähigkeiten*) in addition to occupation-specific skills and knowledge (Deutscher Bildungsrat, 1970:34). These two notions have a common aim in that they both promoted a move away from a 'widening of expert knowledge' (*Breitenbildung*) to an intention of basing 'educational planning on far-reaching openness' (Beiderwieden, 1994:82) in the form of, for example, open planning, flexible systems and educational pathways.

The potential value of the 'key qualifications' concept in education and training was recognised almost instantly by the *Berufspädagogik* after it had been introduced by Mertens (Zabeck, 1989). It attracted attention not least because of its focus on attributes such as self-initiative, independence and communication skills, which conceptually closely align to the pedagogical notion of *Allgemeinbildung* and appears to support von Humboldt's premise that 'general knowledge presupposes specific knowledge' (Zabeck, 1989:79; cf. Feldmann, 1993). However, Mertens' concept did attract substantial criticism as well, especially from BiBB which elicited its theoretical and definitional shortcomings.

One of its main concerns was that there was neither conceptual nor content clarity (Laur-Ernst, 1991:125-6). A major criticism was made about the difficulty of 'key qualifications' transference, because the transfer potential of both the 'basis' and 'horizontal qualifications' was deemed to

be very limited (Zabeck, 1989; Reetz, 1989). This notion has been supported by recent research which indicated that there are no broad application possibilities when imparting general thinking abilities (Dörig, 1995:119). Similarly, a general 'transfer-ability' that can be applied flexibly in specific contexts is non-existent, the reason for this being that knowledge and abilities are context-specific (Gray and Orasanu, 1987, quoted in Dörig, 1995:120).

According to Zabeck (1989:80), despite the fact that the transfer problem is largely unresolved, empirical research has demonstrated that domain-specific transfer is possible and he makes reference to Thorndike's experimental research. He argues that competence can only be acquired within the context of initial trade training and is based directly upon the training content and occupational working techniques and not, as Mertens is implying in his hypothesis, mainly through the development of 'key qualifications' (Zabeck, 1989:83; Bunk *et al.*, 1991). The didactical task ahead, in Zabeck's (1989:83) view, is to foster higher order abilities through the development of specific 'action' schemata that will facilitate independent transfer in due course.

The notion of 'key qualifications' has been criticised also for its utilitarian focus on the demands of the labour market while ignoring the perspective of the individual (Reetz, 1989; Dörig, 1995; Feldmann, 1993). The issue of how these 'key qualifications' are assigned to one of the three areas of competence (see figure 8.1) is unclear and therefore not unproblematic, according to Bernhardt (1993:36), who identifies independence, learning ability, communication and co-operation ability, ability to method-based action and receptiveness towards taking responsibility as being the fundamental and important 'key qualifications'.

Since the 1980s, a shift has occurred from a labour market-dominated focus on 'key qualifications' towards the 'qualifications' requirements of an enterprise which was triggered by a demand from

industry because of changes in the employment system (Quack, 1993:18). Research has demonstrated that particularly in the larger industrial enterprises the introduction of new technologies resulted in significant changes in the internal division of labour and, as a result, new training concepts and methods were deemed necessary to support efforts to achieve rationalisation and flexibility in production and management (cf. Reetz, 1989) (11). The value and purpose of 'key qualifications' in this process have been (and are) regarded as very important and their application in industrial praxis generally occurred as a modification of Mertens' original notion.

Bunk (1994) and Schelten (1987) are two of several scholars who have made useful conceptual amendments to the original notion. 'Key qualifications', as they see them, comprise 'material knowledge and abilities', which to a large degree are comparable to Mertens' 'width elements' and 'vintage factors', and 'formal cognitive and psychomotor abilities and skills', attributes which in terms of content and purpose are largely similar to the two remaining 'key qualifications' Mertens proposed. They state furthermore that individual-centred 'qualifications', *i.e.* 'personal' and 'social qualifications', need to be included in any emerging 'key qualifications' model.

Whereas the former refers to propensities such as 'responsibility' 'precision', 'reliability', and 'independence', the latter incorporates qualities such as 'fairness', 'co-operation' and 'team spirit' (Bunk *et al.*, 1991:368; Zabeck, 1989:80). *Berufliche Handlungskompetenz* (see figure 8.1) now has evolved from the original 'key qualifications' concept as the principal notion and has become since the mid-1980s a dominant vocational training policy and curricular aim. Additionally, it is also not an uncommon training and organisational objective, especially in the larger companies (12). Trials are being conducted in four large industrial enterprises, focussing on the integrated teaching of expert 'qualifications' and 'key

qualifications' in the workplace, projects which receive the assistance of BiBB (Bunk *et al.*, 1991:368; Calchera and Weber, 1990).

There is now widespread consensus in Germany about the importance and usability of 'key qualifications' (Reetz, 1989; Deutscher Bundestag, 1990). They are regarded as at least as important as specialist skills and knowledge in initial trade training (Beiderwieden, 1994:76,79; von Bardeleben, interview, 1995). And, significantly, this concept is now being considered as a general educational policy aim that extends beyond the context of apprentice training to the sectors of general secondary, tertiary and further education (Bundesanstalt für Arbeit, 1992:318). In the 16 German *Länder* different approaches are being used to foster 'key qualifications' in both general secondary and vocational education.

A common goal underpinning these approaches is the curricular intention of developing individual student's independence and responsibility in relation to solving problems. In order to achieve this, flexible learning programmes, such as project education, are used (*ibid*, p.320). Research into implementation models is being conducted by the individual *Länder* but not by the KMK. Although the current discussion focusses on how to incorporate 'key qualifications' in vocational education, the KMK believes that 'vocational training should be complemented with more general education' and, conversely, 'that general education should increasingly have a vocational orientation' (Herrmann, interview, 1995).

While BiBB has identified a total of approximately 330 'key qualifications', a 'comprehensive model does not exist to date' (Franke, interview, 1995) (13). 'Key qualifications', in the view of the Institute, constitute an individual's capability to observe specific work-related conditions and react upon these by means of different action schemata, *i.e.* the integration of 'expert', 'social' and 'humane (or personal) competence' in action (BiBB, n.d.). They are seen as always being the outcome of

individual learning and experience processes and, especially, experience is conceived to be a major component in the acquisition of these 'qualifications'.

According to BiBB (*ibid*), the significance of 'tacit knowledge' (*Erfahrungswissen*) is not yet reflected sufficiently in the organisation of vocational training and work structures of the enterprises (Lennartz, 1990a). The analysis and assessment of tacit knowledge, *e.g.* intuition and empathy, is deemed to be a difficult task by BiBB as adequate assessment instruments are lacking. The issue of how to measure 'key qualifications' in vocational education and training has not been solved in Germany and, therefore, it is current best practice to assess them indirectly by inference when examining measurable skills and knowledge (Franke and Reisse, interviews, 1995; see also Projektgruppe Schlüsselqualifikationen in der beruflichen Ausbildung, 1992).

Although 'key qualifications' are now referred to in the preambles of the training ordinances, outline curriculum plans, and in the individual school curricula and enterprise training plans, these curricular aims are not reflected in learning objective taxonomies. Thus, it is quite unclear at this point in time what 'key qualifications' exactly are, how they are acquired and maintained, and what their meaning is within the full range of human knowledge and abilities (Lennartz, 1990a). In spite of the absence currently of a comprehensive model of 'key qualifications', BiBB has recently defined, for the purposes of examinations and certificates, a number of 'key qualifications'. These are equally applicable to all occupations and are: 'action knowledge', communication, co-operation, learning/informing, problem-solving, planning and organisation, and mathematical skills. In addition, and for a certain number of occupational groups only, creativity, sensomotor skills, and spatial vision (Reisse, 1995:48).

Lennartz (1990b:208) rightfully claims, in my view, that for the aim of individual independence and flexibility in learning and training to become a reality, the context must be conducive to achieving this for that individual. In many enterprises, despite 'post-Fordist euphoria', work is (still) organised around strict procedures and routines. She furthermore observes, when referring to the reformed commercial training occupations, that the traditional four-stage training method still prevails. Evidence of adherence to these conventional methods is also manifested in the examination system, where the testing of knowledge remains a dominant focal point and which runs counter to the aim and purpose of the *berufliche Handlungskompetenz* concept (*ibid*, pp.208-9; Hermanns and Hansmann, 1994:399).

According to Lennartz, 'key qualifications' should be understood as 'an organising principle for learning, training and assessment'. The implications of this assertion for the organisation of vocational education and training are far-reaching and relate, mainly, to four areas. The first being that the introduction of active forms of on-the-job training needs to be reflected in the vocational content structure. Secondly, these modifications necessitate a reconsideration of the traditional roles carried out by the enterprise and the *Berufsschule* in the dual system. Thirdly, the new training concepts call for a subsequent reform of the examination system; and lastly, the new workplace training strategies require a concurrent change in the work organisation of enterprises (*ibid*, pp.209-10).

This last point appears to support the view that although individual attainment of 'key qualifications' is regarded as both an educational policy aim and modern labour market requirement, the workplace may have to take a lead in further developing and implementing the 'qualifications' concept as this is largely facilitated by and dependent upon available technology and the type of work organisation in an enterprise (Lennartz, 1990b:107-8). Lennartz further suggests that these training reforms can

only be implemented successfully if they are carried out consistently across every aspect of training that they impinge upon, and which need to be attuned to the broad policies governing them.

QUALITY CONTROL

Within the context of this section, 'quality control' is considered as a generic term referring to a number of measures which have been put in place to ensure that the overall quality of vocational education and training is maintained and, ideally, further developed. These measures, some of which have been described above, are:

- the qualifications of teachers;
- the accreditation of training places;
- assessment, examination and certification;
- the development, implementation and evaluation of occupation-based standards;
- the standard of the skilled worker's certificate, and
- the cooperation between the social partners.

This section will focus on the first three criteria in particular and, additionally, the evaluation of occupation standards. Raggatt (1988:167) lists, in addition to the above, two more forms of quality control, *i.e.* the qualifications held by young people entering apprenticeships (see chapter seven) and the historical and legal continuities. With regard to the latter, it is important to note that the law functions in Germany as a primary source of quality control and is regarded as guaranteeing the rights of citizens, not restricting them (*ibid*, p.176; Deissinger, 1994a:20). Hence, the law provides continuity with the past by building on established models and traditions which, as has been demonstrated, is certainly applicable to the Vocational Training Act. However, it needs to be mentioned here that the Act does not define terms like 'quality', 'quality control' or 'training quality'.

No legal definition exists as to what constitutes a 'trainer' in Germany and consequently there is neither a protected occupational title nor an occupational profile (CEDEFOP, 1995:35). In-company training predominantly forms a part of the normal work process and the majority of the trainers are engaged in apprentice training on a part-time basis. There are approximately 470,000 trainers in the Federal Republic (BMBF, 1994:128). The owner of the enterprise normally nominates a staff member as the trainer who henceforth assumes responsibility for the training and is also obliged to be a contact person between the enterprise and the career guidance services, the trainees' parents, the Chamber, the *Berufsschule* and other bodies involved in vocational training. The trainer's appointment is verified by and registered with the appropriate Chamber.

Importantly, enterprises are allowed to employ and train apprentices only if they have suitably qualified trainers and are accredited training places (14). Those people who seek admission to the trainer aptitude examination must have gained relevant work experience, passed a final examination at the end of an apprenticeship in the trade in which training is being given, be at least 24 years of age, have passed a test on their occupational and pedagogical aptitude and, lastly, have attained the status of master craftsman status (Der Bundesminister für Bildung und Wissenschaft, 1992:23; cf. Raggatt, 1988). The *Meister* credential, it should be noted, is a 'lifelong qualification for which there is no requirement for (professional) retraining' (Krekel-Eiben, interview, 1995).

The prescribed trainer competences are regulated in the Trainer Aptitude Regulations (*Ausbilder-Eignungsverordnung*; AEVO) which were introduced in 1972 (15). The ordinance was introduced for the purpose of rectifying an unsatisfactory situation in which a range of enterprise staff members, such as *Meisters* (see chapter seven), skilled workers, engineers and technicians, could train apprentices on the basis of their acquisition of work teaching competence through practice and/or further training

(CEDEFOP, 1994a:48). AEVO certified trainers, on the other hand, have to complete a course of training that lasts between 120-200 hours and they are examined in the subject areas of basic issues of vocational training; planning and implementation of training; young people undergoing training, and legal foundations.

The examinations have written and oral components, and candidates are required to demonstrate their teaching skills, but are allowed to use a teaching method of their choice in a 15 minute test. The written examination lasts for about five hours covering the last three subject areas, while the first topic is dealt with in a 30-minute oral test (CEDEFOP, 1995:43). The skills and knowledge required for AEVO certification have recently been included in the examination prescriptions for the master craftsman and the industrial master.

Approximately 30,000 candidates sit the AEVO test annually and an additional 50,000 are preparing for the master craftman examination (BMBF, 1995d:102). Successful examinees become upon registration with the appropriate Chamber a trainer or foreman-trainer and have the legal authority to train apprentices in their employing enterprise. Head trainers, on the other hand, who are mostly full-time instructors, tend to be in charge of the further training of skilled workers and usually hold either a university or a *Fachhochschule* degree. A third category of trainer is the skilled worker-trainer, a title that may differ between enterprises, and who has a high degree of responsibility for practical instruction. They do not hold, however, work teaching credentials and normally are placed under the supervision of a foreman-trainer or a head trainer (*ibid*, p.37).

Paffenholz (1994:364-7) identifies a number of problem areas regarding the training of trainers. Enterprises that provide training, in his view, differ substantially in terms of their size, economic activity and organisational structure and employ a diversity of training personnel. This reality has not been recognised in the Vocational Training Act as it only

refers to 'the trainer'. The standardisation in the AEVO course and examination requirements, as referred to above, therefore conflicts with Paffenholz' view which contends that the type of training for trainers and its subject content varies by economic sector, region and size of enterprise. Subsequently, a standard training profile for trainers is non-existent in Germany. He points out, in addition, that candidates are predominantly tested in the AEVO examination on their ability to reproduce cognitive knowledge and not on how to apply this knowledge pragmatically and pedagogically. In the new learning and teaching environment teachers and trainers are not only required to impart occupational and social skills but also, increasingly, 'key qualifications'. In order to do this, an extension of their range of pedagogical competences and the attainment of '*pädagogische Handlungskompetenz*' (pedagogical action competence) is deemed important (*ibid*, p.370).

The regulations and practices pertaining to the 'AEVO' trainer certification programme have been criticised by others for not adequately meeting changing demands, especially by the trade unions and by many trainers themselves (CEDEFOP, 1994a:48). The Executive Board of BiBB decided in 1990 to reform the outline curriculum plan for the training of trainers, upon consideration of a request made by the trade unions. The dominant feature of the new outline training plan is that the terminology used in it explicitly supports the vocational training aim of '*berufliche Handlungsfähigkeit*', while the curriculum plan itself is being promoted as 'an open and action-oriented concept' (BiBB, 1994b:3-4).

The DIHT has drawn up the learning aims and the curricular content from the outline plan and recommends that users apply these guidelines flexibly. Additionally, the DIHT is fostering the idea that trainers are now moderators and creators of learning processes, a notion which is widely acknowledged and supported (DIHT, 1993:i; cf. BiBB, 1994b; cf. *Position*, 1993a; cf. Eckert, 1992). The DIHT considers the new

outline plan and its subsequent curricular operation as being important and necessary steps in the process of upgrading the quality of training (*Position*, 1993b:22). There are claims, however, that the new guideline plans are not an improvement at all since they constitute only a change in terminology. The focus, again, still remains on reproducing cognitive knowledge in the examination while the issue of the consequences of the introduction of new technologies on the training content has not received adequate attention (Paffenholz, 1994:369-71).

Berufsschule teachers are generally public servants appointed to their positions for life and they form, in contrast to the in-company trainers, a heterogeneous group with respect to their professional qualifications and the career paths available to them. Theory teachers, who are the great majority at the *Berufsschule*, are required to have completed a first degree course at an institution of higher education, for which the normal entry qualification is the *Abitur* certificate and, furthermore, the completion of a one-year period of industrial placement relevant to their subject specialisation or, alternatively, to have attained a vocational training qualification (CEDEFOP, 1995:38; CEDEFOP, 1994a). The degree course which leads to the *Diplom* or the First State Examination Certificate is followed by an 18 month post-qualification teacher training period, which is concluded with the Second State Examination and bestows upon a candidate full qualified teacher status.

As a rule, teachers provide lessons in the theory of one subject in which they have specialised during their studies and in a general subject. Professionally, they are required to update themselves on the latest developments in their subject area and to be familiar with the latest teaching methods and resources. Practice teachers, on the other hand, normally possess the *Realschule* certificate, have completed a *Meister* or technician's course and, additionally, have at least two years of relevant occupational experience. Some subject teachers, however, hold non-

university engineering qualifications. In contrast to the theory teacher who is employed at the *Berufsschule* and is classified as a senior grade teacher in all the *Länder*, the practice teacher is usually a salaried employee in the service of a *Land* and there are no uniform career regulations for this group. It is the latter's task to supplement the training and work an apprentice undertakes at the workplace.

Although federal teaching standards are non-existent for either group, they are being specified at the *Land* level (CEDEFOP, 1995; BMBF, 1995d). Of significance here is that the ethos of the *Berufsschule* is oriented towards the world of work rather than of general education for its own sake, for the majority of the students spend three to four days at the training enterprise (Rose and Wignanek, 1990:78).

Trainers play an important role in initial trade training in that they bear the responsibility for assuring that the prescribed training standards are being met in accordance with the occupational teaching requirements and the training plan of the enterprise. Trainers, however, are not only responsible for imparting technical competence, but also bear responsibility for passing on social skills. It is this social role in the provision of on-the-job training that is considered most important as generally no distinction is made between work and family culture (Rose and Wignanek, 1990). Consequently, social and cultural values are not only exposed but also nurtured in the training process, ensuring social and cultural continuity (Raggatt, 1988:171; Flower and Russell, 1983:16). Thus the development of the trainees' personality and the socialisation into work and organisational culture is an explicit and fostered training goal in Germany (CEDEFOP, 1995:36; Rose and Wignanek, 1990).

The accreditation of enterprises to provide training for a recognised occupation can be considered as a second form of quality control. The Vocational Training Act specifies the framework criteria for

provider accreditation. Accreditation decisions are usually made by the Chambers on the basis of an assessment of documentation submitted by the enterprise as regards its purpose and size, the available equipment, resources and the number of training places, and the qualifications and experience of trainers (HMI, 1991:16). If there are any doubts about the suitability of the training enterprise, the Chambers may conduct an on-site inspection which is carried out by a full-time officer of the Chamber together with a technical advisor. Follow-up visits may take place to ensure that the quality of training is maintained. The training advisors (counsellors) employed by the Chambers advise enterprises on issues relating to apprentice training and monitor the quality of the training provided (Campbell, 1994:60-1).

BiBB research, however, has revealed that these advisors normally were not very helpful for apprentices when they encountered problems in their training (*cf.* Grünewald, 1990). Under the Act, the two main criteria are that enterprises must be suitable for training apprentices within the economic sector in which they operate (*e.g.* industrial firms are only to provide industrial apprentice training), and the apprentice must be able to acquire the necessary knowledge and skills for an occupation. Secondly, firms are required to have the appropriate equipment, *e.g.* tools and machinery, for the training. A third criterion closely related to the first form of quality control, stipulates that part-time trainers must not have responsibility for more than three trainees. Full-time trainers, on the other hand, are not allowed to train more than 16 trainees in a single group, and it is a legal requirement that three skilled workers involved in the work process must be responsible for each trainee (CEDEFOP, 1995:37). Research conducted by BiBB has revealed that full-time trainers are employed in only 10% of the training companies (Grünewald, 1990:369).

Despite all these detailed prescriptions, an enterprise that wants to deliver training is technically required to have only one registered trainer

(*Meister*) to officially become a training provider (Krekel-Eiben, interview, 1995). The Act further specifies that if an enterprise is unable to impart the prescribed knowledge and skills in full, apprentices must receive training outside the firm so as to ensure that the whole training prescription is completely covered (Der Bundesminister für Bildung und Wissenschaft, 1992:25). This takes place in inter-company training centres of which there are some 340 in Germany with an overall training capacity of 60,000 training places, and which are operated by Chambers and Guilds (Campbell, 1994:53).

BiBB has conducted empirical research into the impact of the Vocational Training Act on the quality of training in the world of work in 1974 and again in 1989/90. The outcomes of the latter survey have demonstrated that 38% of the enterprises provided in-company theoretical instruction to apprentices in addition to their studies at the *Berufsschule*, while 35% of on-the-job training was being complemented by training in inter-company training centres. Moreover, 15% of the trainees were sent to external courses by their training provider (Grünwald, 1990:371). In the same survey it was shown that almost 20% of the enterprises providing training at the time did not comply with all the legal requirements under the Act and this had occurred without the overseeing authorities intervening (*ibid*, p.368).

A recent phenomenon in the debates on the improvement of quality in training is the beginning of discussions as to how international standards, such as DEN/EN/ISO 9000, can be introduced and applied to the areas of initial and further training; and, of course, whether these standards are desirable and appropriate at all. In Fuhr's (1993:327) view, their application to workplace training is currently only being addressed 'superficially'. However, there are some 20 agencies in Germany specialising in providing international standards certification services for enterprises and private providers at present (Kloas, interview, 1995). But

this work is, to date, predominantly confined to the area of further training. Certqua (16), one such agency, was jointly established by the BDA, DIHT, ZDH and the 'Wuppertaler Kreis' in November 1994, and is focussing in its work in the further education market and not initial trade training. Political discussions on the introduction of quality management systems in apprentice training and general secondary schooling issue are of a very tentative nature as any further deliberations need to take into account the necessary legislative amendments required for this change and the consequences this will have for the roles of government bodies, such as the Federal Ministry of Education, Science, Research and Technology and BiBB (*ibid*).

The quality of education and training cannot be defined by an international standard such as ISO 9000, whatever its definition of quality may be, as the assurance of quality is and remains the prime function of practitioners, such as workplace assessors, vocational school teachers and educationalists (Blanke, 1995:207; IGM, 1995). The application of these international standards to the organisational development of schools may, according to Blanke (1995), potentially have a positive impact. If a standard like ISO 9000 is to be introduced in compulsory schooling it is, in his view, important that it is applied pragmatically to the aims of education and not the other way around, a notion which is generally endorsed in this work (*ibid*).

The third form of quality control in the dual system of initial vocational training is the evaluation of training ordinances by BiBB which is considered being the third phase in the standards setting process and now deemed to be an integral part of training ordinance research (*cf.* Lennartz, 1992). The explicit purpose of evaluation is to discover the effectiveness of newly released training regulations in the world of work, and subsequently, to use the findings to support the planning and implementation of new ordinances. The research focusses particularly on

whether the 'qualifications', *i.e.* the training content and the examination requirements, and the design of occupations into profiles and sectors are meeting the demands not only of the workplace but are also aligned to the dominant vocational training policy direction of the major role players (*ibid*, pp.11-2). BiBB, in both its research and implementation work, always needs to take into consideration both the political and practical implications (Paulini *et al.*, 1995:39; Heine-Wiedenmann, 1988).

A wide range of different evaluation practices in training ordinances research currently exists at BiBB which recently, and under the influence of the reformed metal engineering and electrical trades occupations, became the subject of discussion at the Institute. A common evaluation concept that can be used in the assessment of the different types of occupations is now seen as a desirable aim (Paulini *et al.*, 1995:37). Therefore, a 'catalogue of criteria' has been proposed for evaluating ordinances. However, there is no compulsion for applying it stringently due to the fact that training occupations can differ considerably in content and type.

The catalogue covers five main areas into which evaluation research takes place. These areas, which have been further divided into sub-areas, are: the 'structural features', the ordinance (*e.g.* the length of the training), outline curriculum plan and implementation aids; the 'implementation features'; the 'outcome features' (*e.g.* examination results); 'utilisation features' (*e.g.* career pathways and the division between initial and further vocational training) and, lastly, the 'policy features' (*e.g.* criteria of the Executive Board of BiBB, the Vocational Training Act) (*ibid*, p.41). This catalogue of evaluation criteria is complemented by four different types of evaluations which have been identified by BiBB as in the following table, of which the first two are most frequently used while the last one is more or less a future aim.

TABLE 8.3

TYPES OF EVALUATIONS IN BIBB'S TRAINING ORDINANCES RESEARCH	
1. Product evaluation	- training ordinance, plans, concepts, implementation aids
2. Outcome evaluation	- experiences, results, transfer, efficiency
3. Process evaluation	- in-put processes, learning and teaching processes
4. System evaluation	- part or total of the vocational training system

Source: Paulini *et al.*, 1995:38.

The first two types of evaluations are normally used by BiBB in the appraisal of training ordinances. Product evaluation exclusively focusses on the training content and examination requirements, whereas the second type assesses the efficiency of, and experiences with, the implementation of the new regulations. Process evaluation, on the other hand, analyses the implementation processes with regard to the introduction of reformed or new ordinances in the workplace. Evaluation is integrated into a standards-setting process that comprises four phases starting with research into the reform needs for a particular occupation or occupational field. This is followed by the preparation/harmonisation procedures (see table 8.1) and the development of teaching aids for the new training regulations and is concluded with evaluation research. The latter phase may be used, on the other hand, as the first step in the research process (*ibid*, p.39).

The application of a wide range of methods is advocated in the new approach and includes group discussions, interviews with experts, in-company visits, statistical techniques, surveys and literature research. The

recommended criteria catalogue is currently being trialed in a BiBB research project that runs until December 1997. Upon appraisal, the catalogue may be used for future research purposes, in the same or a modified form (*ibid*, p.42).

EXAMINATION, ASSESSMENT AND CERTIFICATION

Under the Vocational Training Act, the Chambers have the statutory responsibility for the setting, implementation and assessment of examinations in nationally recognised training occupations. They also have the power to issue examination prescriptions and to set up, for each training occupation, examination committees. These committees are made up of delegates of the employers and the trade unions in equal proportions and include at least one *Berufsschule* teacher who is nominated by the authority supervising the school (BiBB, 1990:2). The typical size of an examination committee is nine although this can differ as a result of the number of examinees admitted to an examination, and members are appointed for a period of three years (HMI, 1991:17).

The committees have the task of running the examinations, marking the scripts and issuing the certificates. The prescriptions stipulate the entry requirements for the examinations, its content, the performance criteria and provide assessment guidelines and, also, describe the way the examination is organised. Examinations take place twice a year, in summer and winter, and the examiners work on a part-time basis. Their salaries are covered by local employers while their travel costs and sundries are met by the Chamber (*ibid*). The Vocational Training Act stipulates that examinees are not required to pay fees for any of the trade examinations, which is paid for by the enterprise providing the training (*cf.* Der Bundesminister für Bildung und Wissenschaft, 1992).

Different types of examinations are administered by the Chambers. Firstly, an intermediate trade examination which normally, in the case of

three or three-and-a-half year training, takes place at the end of the second year and is merely a indicator for progress made in the apprenticeship in terms of knowledge and skills acquisition. However, its importance is relative as, for example, admission to the final examination is not conditional on passing the intermediate test (Schaub and Zenke, 1995:380). Moreover, the results of the qualifying examination(s) do not count towards the final examination. The Act, nevertheless, requires that apprentices to sit at least one intermediate examination during the course of their training. The final trade examination is the second type of examination for which the (minimum) standards are specified in the national training ordinances.

The main admission criteria for sitting this examination is that an applicant has completed the prescribed period of training, kept a log-book which has been signed by the enterprise supervisor and by the *Berufsschule* teachers, and that his or her training contract has been registered with the Chamber (BiBB, 1990:3). It is necessary that at least 80% of the log-book is completed, a formal requirement which is moderated by the Chambers (HMI, 1991:17). In addition to these two types of examinations, the Chambers are charged with the statutory function of administering examinations in the retraining and further vocational training areas (IHK, 1994).

The final examination for apprentices is the formal requirement for qualification in Germany and has not been the subject of any major change (Wolf, 1991b). It comprises three components, *i.e.* written, oral and practical. The methods used for the practical test are examination tasks and work samples which are 'examples of product and process assessment, respectively' (Reisse, 1992:8). This is usually complemented by a 'programmed' written test (*e.g.* 'multiple-choice' or short factual questions) and sometimes by an oral test, which is required for only a limited number of training occupations.

The value of an oral test as a distinct component of the final examination is diminishing, particularly within the context of an emerging paradigm shift in learning and teaching (*cf.* IGM, 1995). In 1980, the Executive Board of BiBB recommended that technology, technical mathematics, draughting and economics and social studies be the standard examination subjects for the industrial trade occupations. But despite the introduction of 'work planning' as an additional mandatory examination subject for the metal engineering and electrical trades in more recent times, it is believed that there is a move from strict adherence to these requirements towards a more flexible interpretation (Reisse, 1992:9).

The German examination system in vocational training strongly focusses on the attainment of 'qualifications' at the end of the programme (4). Continuous assessment, on the other hand, has been tried on an experimental basis in some of the *Länder* and was the object of a BiBB research project in the mid-1970s (HMI, 1991:20; IGM, 1994). A UK HMI report (1991:20) claims that both trainers and apprentices felt that 'it was not as reliable a method of testing overall performance as the final examination'. Standards- or achievement-based assessment is not considered a desirable alternative at present as it is deemed to be incompatible with a qualifications-based award system that continues to serve as a basis for social stratification (IHK, 1994:126). Norm-referencing in trade testing under the aegis of the dual system is expected to remain in the future a dominant feature of the final examination system, despite the practice of work sample tests and, in some occupations, oral examinations complementing the external written test as 'types of criterion-oriented testing' (Reisse, 1992:8).

In concrete terms, trade examination results are measured on a 100-point scale and converted into grades which run from six to one, with one being the highest. Fifty points is the minimum pass mark and translates to a grade four (IHK, 1994:128; *cf.* Reisse, 1992). This score must be obtained

in each part of the examination. Those who fail at their first attempt are allowed to repeat the examination twice at the most.

The written papers are normally bought by the Chambers from central specialist agencies, such as PAL and AKA. PAL develops examination papers for the industrial-technical apprenticeships and was established in 1947 by the Chamber of Industrie and Commerce in Stuttgart, whereas AKA, a Nuremberg-based agency, was set up for the commercial trades. In contrast, the trade examination papers for other sectors of the economy, such as the craft and the public service areas, are being developed regionally. A similar combination of centralised and regional arrangements exists for the marking of the trade examinations. PAL and AKA, for example, currently undertake the marking on behalf of the chambers of industry and commerce, respectively (Reisse, interview, 1995). The costs these bodies incur as a result of their work are recovered from sales of services and products to the Chambers.

The role and practices of central bodies such as PAL are not unchallenged. It has been argued that the predominance of multiple-choice questions in the written part of the final trade examination is, according to test psychological theories, a restrictive and inappropriate way to test the overall competence of a candidate. Furthermore, the introduction of 'programmed' examinations in 1979, and an endorsement issued by the Executive Board of BiBB in 1987, have resulted in over-standardisation in trade testing, as some see it, which is essentially underpinned by economic motives (Rissmann, 1978:250; Reisse, 1978:457; Frackmann, 1992:291; Tollkötter, 1978; IGM, 1995).

In general terms, the economic interests of the major role players in vocational training are not only protected through the standards-setting process but is also reflected in the organisation of the trade examination system. IG Metall exemplifies this aspect in a recent position paper by pointing out that the committees of PAL exercise significant influence over

the aims and implementation of enterprise-based training and, indirectly, institutional learning by their authority to define the examination requirements which, at the same time, lacks either political or legal legitimisation (IGM, 1994:11). The *Berufsschule* teachers, for example, have in the past been pressing for schools results be counted towards the final examination administered by the Chambers (Schmidt and Reisse, 1983:195).

An initiative taken by the *Länder* of Rhineland Palatinate and Hessen in 1992 to have both the school and in-company study and training results counted towards the final examination has found support, both from the KMK (1993:1-2) and the federal government who requested the Federal Education Ministry to set up a working party for the purpose of designing a common final examination. The working party members, however, could not agree with one another so that the *Länder* initiative collapsed (IGM, 1994:3-4). A second concern is that centrally developed examination papers do not, in their view, adequately take into account the *Land*-specific training conditions that equally apply to enterprises providing training and the *Berufsschulen*.

The statutory functions of BiBB in trade examinations are limited. The Institute, of course, is involved at a 'macro' level with the development of training ordinances that includes the examination requirements. This is being complemented by its requirement to 'explore and improve testing and measurement in the area of vocational training by means of applied research, development, consultation, training and other activities' (Reisse, 1987:1).

Dauenhauer (1981:334) asserts, as has been stated above, that multiple-choice-style examinations are no longer appropriate for the modern-day demands of the world of work. However, some of the advantages seen to be associated with 'programmed' examinations are, for example, that the costs involved for marking are relatively low and,

moreover, it produces a high degree of objectivity. On the other hand, this method is generally deemed less suitable for assessing the transfer and problem solving abilities of a candidate and the reason for giving a particular answer is not appraised, only the outcome (IGM, 1995:4). The new concept of 'integrated assessment' in vocational training in Germany is a notion in which the knowledge, skills and attitudes of a candidate are assessed against their performing real (or simulated) work tasks (Reisse, interview, 1995).

IG Metall (1994:31), in taking a leading role in this area, advocates the introduction of a concept similar in purpose, *i.e.* the 'practice-oriented "qualifications" assessment', which it considers as an 'occupation aptitude or entry examination'. Assessments, according to this concept, are to be conducted in accredited places of learning where an examination committee can observe a candidate performing in the workplace. This method, according to IG Metall, has the potential to overcome the problems associated with separate written and practical examinations. In addition, IG Metall promotes the introduction of modules of learning in the dual system which, it believes, will foster the institution of individualised learning processes and allow for multiple organisation forms (*ibid*, p.24).

Recent material published by the chambers of industry and commerce on the practice of examinations tend to discuss the issue of 'key qualifications', but generally do not offer any guidelines on how to assess these (*cf.* IHK, 1994). More helpful, in this respect, appears to be expert seminars proceedings and project reports (*cf.* Projektgruppe, 1992 and 1994). According to Reisse (1993a:180; interview, 1995), 'key qualifications' cannot be assessed directly in trade examinations. Attributes, such as the 'ability to work in teams' are, in his view, only likely to be assessable in the workplace. He claims that it is neither possible nor desirable to fully test

berufliche Handlungskompetenz in examinations, because of its complex and 'problematic' configuration and content (Reisse, 1993a:183).

In making the examination system more relevant and responsive to the new aims of vocational training, Reisse (1993b:213-14) appears to be convinced that examinations should be oriented to the practical requirements of the workplace and not the vocational training system, which is a belief he shares with IG Metall. Integrated assessment of knowledge and skills in intermediate and final trade examinations is already a reality and is, for example, prescribed for the recognised training occupation of technical draughtsman (IGM, 1994:5. Trial examinations have produced, it is claimed, satisfactory results (Sonnek *et al.*, 1993:222).

A distinct feature of the German vocational training model is the triple certification system. Every successful trainee is awarded at the end of the apprenticeship three separate certificates: an examination certificate, also called a skilled worker's certificate (*Facharbeiterbrief*) (17), a certificate issued by the *Berufsschule* and, thirdly, one by the enterprise providing the on-the-job training. The first certificate is awarded upon passing a final examination in a recognised training occupation and is considered as the most important of the three 'as it is used for assessing progress towards national goals and objectives in vocational training' (Reisse, 1994:15).

These Chamber examinations, however, are not (federal) state examinations and therefore the certificates issued are not national awards (CEDEFOP, 1994b). On the other hand, the standard of apprentice training these certificates attest to is nationally recognised and accepted throughout the economy (Wolf, 1991b; CEDEFOP, 1994a). These certificates, and in particular the Chamber certificate, not only express the qualification level attained but confer the 'social and economic status' of skilled worker or journeyman and provide also a uniform basis for wage bargaining.

Enterprises issue formal company testimonials to apprentices in which their performance and the skill level they attained are attested to, based on internal assessments and observation during the training period. The legal basis and format of the locally issued *Berufsschule* certificate differ from *Land* to *Land* and as a rule student performance is appraised through 'continuous assessment' (Reisse, 1992:12). The educational and labour market value of this document, however, is seen as very limited not least because it is 'a short-time achievement indicator' (Schmidt and Reisse, 1983:188). Although the three certificates form a triple certification system, each one has evolved independently from the others and there is no coordination between them (*ibid*).

So, in the German dual system internal and external assessment are combined. Standards are set externally and broadly specified in the training ordinances (see above). The final trade examination is seen as a form of 'external performance evaluation' (Reisse, 1992:10) and comprises a written test (mostly multiple-choice), a practical assessment, where a candidate is required to make, for example, a piece of furniture before an examination panel, and sometimes an oral test. In regards to the practical tests, the standards 'are carried in the heads of the examiners' (Wolf, 1991b:554) who have the sole responsibility of deciding whether a person fails or passes the test. There is no pressure to change this traditional practice of local testing and marking and neither formal local nor national moderation is the subject of expert or public debate (*cf.* Wolf, 1991b).

Moderation in vocational training, as defined in chapter four, is non-existent in Germany (Reisse, interview, 1995). The combination of the three certificates, in the view of Schmidt and Reisse (1983:188), are different but complementary signals for *berufliche Handlungskompetenz*. Occupational competence, in sum, is assessed by the application of various methods at the different places of learning in the dual system during a prescribed period of combined study and training and which is concluded

with an external Chamber-run examination that sets out to test 'uniform minimum competency' (Reisse, 1992:7) as prescribed in the national syllabus. A concern expressed by Reisse (1994:18) is that 'advanced competencies are not included in this uniform standard', by which he is referring to 'key qualifications'.

It should be noted here that the training regulations are not expressed in 'classical "competence" terms' (Wolf, 1991b:553) (see chapter three). The present certification system for education and training in Germany on a whole lacks clarity and is hardly comprehensible. The dual system, on the other hand, is the only 'educational institution in which there are uniform national examination requirements' (CEDEFOP, 1994:80).

NOTES

1 See also chapter 6. '*Beruf*' and 'occupation' in this chapter are referred to interchangeably, denoting largely a similar meaning and regarded as conceptually distinct from 'job' and 'profession'.

2 Dr Jochen Reuling is working in the area of comparative vocational training research at BiBB in Berlin.

3 In keeping with metaphors, Kloas (interview, 1995) views *Beruf* 'as a driver's licence', a 'ticket' of competence and which inadvertently invokes an analogy with the New Zealand competence concept (see chapter 3).

4 Kutscha (1992b:535) states that this orientation towards core skills can be considered as indicating a trend towards 'de-occupationalisation' ('*Entberuflichung*') which, in turn, marks a new occupational focus ('*Neue Beruflichkeit*').

5 This process was changed in July 1995 which saw the six vocational training research fields reduced to three and the corresponding working groups abolished. Furthermore, all the 'project ideas' now have to be discussed in the open project conference before they might be accepted as a project plan (Schwiedrzik, personal communication, July 1996).

6 This term is used in the 'German' sense and encompasses skills, knowledge and attitudes, which is a general description referred to and applied throughout this work. However, it has also been defined as the 'acquired ability of a person to successfully act in different situations on one's own initiative or when undertaking a task assigned to that person'

(Projektgruppe Schlüsselqualifikationen in der beruflichen Ausbildung, 1994:172).

7 Herrmann (interview, 1995) reported that it takes between three to five years to draw up a *Berufsschule* curriculum from a stage a training ordinance is developed and aligned to an outline curriculum plan.

8 Some 800 training occupations existed in the 1940s but which, during the subsequent decades, have been reduced to around 370. Some 260 ordinances have been revised after the introduction of the Vocational Training Act (Benner and Schmidt, 1995:4).

9 This term is used interchangeably with the concepts of *berufliche Handlungsfähigkeit* and *berufliche Mündigkeit* in the literature and has essentially the same meaning, except that in the latter notion *Mündigkeit* specifically refers to the transition from adolescence to adulthood (Projektgruppe Schlüsselqualifikationen in der beruflichen Ausbildung, 1994:153).

10 Mertens (1974:40) clarifies this by using an example in which he explains that the ability to logical and structural thinking forms the common 'basis qualification' for understanding mathematical difficulties and the application of grammatical knowledge to the understanding of foreign languages.

11 A well-known and influential study in this field is H.Kern and M.Schumann's Das Ende der Arbeitsteilung? Rationalisierung in der industriellen Produktion, Munich 1984.

12 For a detailed overview of methods used to impart 'key qualifications' in the workplace, see Projektgruppe Schlüsselqualifikationen in der beruflichen Ausbildung, 1992:59-74).

13 The details presented here largely derive from an undated internal BiBB document which specifically focusses on 'key qualifications' in commercial apprenticeships. This account, although it has been complemented by findings from other BiBB publications and a number of interviews conducted for this research, should not be taken as representing the Federal Institute's official policy.

14 The requirement of passing an AEVO examination for those wishing to undertake training in the workplace has been institutionalised since 1977 (Francke, 1986:34).

15 There are AEVOs for the industrial, agricultural, domestic and the public service sectors. However, the examination requirements and outline curriculum plan for the training seminars are standardised. The requirements for trainers in the craft sector are laid down in the master craftman examination ordinances; training therefore is conditional upon the master craftman certificate. The criteria for the industrial master craftsman in the metal engineering trades are defined in the relevant further training ordinance (Paffenholz, 1994:361).

16 Certqua is an acronym that stands for 'Foundation of the German Economy for the Promotion and Certification of Quality Control Systems in Vocational Education'.

17 There is no uniform name for the Chamber certificate in Germany; the *Gesellenbrief*, for example, is issued in the craft sector of the economy.

CHAPTER 9 VOCATIONAL EDUCATION AND TRAINING: THE CHALLENGES AHEAD

THE DUAL SYSTEM APPRAISED

The German dual system of vocational training is in general highly valued by all the role players involved and widely acclaimed internationally (Lane, 1989:67; Kloss, 1984:100; Arnold, 1993). While it has been perceived for a long time as 'immutable - fixed in its perfection' (OECD, 1994c:5) political and academic discussions are currently addressing the issue as to whether it is sustainable in its present form given the challenges before it. There appears now to be a relatively high degree of support for the introduction of structural and organisational changes. This is manifest in a number of proposals that not only aim to revitalise the national apprenticeship model but also to expand it beyond its traditional boundaries.

In the dual system, the interrelationships between education, training and employment are articulated clearly both in legislation and in

levels of both youth unemployment and people not formally qualified in the workforce (Arnold, 1993:99; Reuling, 1994:6) (1). In the dual system, in-company training is orientated towards the tasks to be carried out in, and the demands of, the workplace, thereby ensuring the currency and relevance of training to economic needs, while accredited enterprises have to train to national standards and comply with the relevant federal laws and regulations (Greinert, 1988:150; Arnold, 1993).

Training is, in the view of Raddatz (1992:53), not intended to satisfy the needs of individual enterprises but is 'conceived as a national program'. They deliver training on a voluntary basis and bear a large part of the costs incurred which include, for example, a relatively low level of apprentice remuneration by international standards. The costs of training, it is believed, are always fully recouped during the period of apprenticeship itself (Casey, 1986:66). This latter point, obviously, is an important factor for those employers to consider who want to provide training (Marsden and Ryan, 1991:252).

In this context, training is seen as distinct from employment and on this the trade unions and the employers are in full agreement. Provision, therefore, in terms of public expenditure is not costly and represents "good value" for the federal government' (Krischok, interview, 1995; Steedman, 1993:1285; cf. Greinert, 1988). The working of the dual system is dependent upon the commitment of employers to supply a sufficient number of training places and the past has proven that the system is flexible enough to cope with the quantitative problems associated with training provision (Adler *et al.*, 1993:4). It has been suggested by some foreign observers though that the former West Germany had a needlessly over-supply of over-qualified and over-trained skilled workers in the 1970s and the 1980s, and this was a rather intrinsic part of the German training culture (Prais, 1981:59; Roberts *et al.*, 1994:42).

Vocational training in Germany is not viewed solely in quantitative and economic terms for a distinctive feature is a strong emphasis on the personality development of apprentices and their socialisation into the world of work (Lipsmeier and Münk, 1994:224). Hence, success in a recognised training occupation is not only seen to confer standing in society and secure employment and remuneration, certification but also ensures worker mobility (Braun, 1987:140; Reuling, 1994:6).

Another advantage associated with the German model is that it is based upon the '*Berufs*' idea that serves as a multifunctional principle underpinning an occupation-based labour market and training system. Furthermore, and importantly, the German system provides an institutional bridge from school and training to the labour market as well as from adolescence to adulthood, and is seen as a significant factor in easing these transitions (Hamilton, 1992:189; Raggatt, 1988). And, significantly, it is based on a long established and respected system of training which is understood by all and attractive to a wide ability range (den Broeder, 1995:29).

The strength of the system as a whole appears to stem largely from attitudinal factors. In this respect it is particularly important to note that the Germans are striving, and succeeding, in producing quality goods, and take pride in this; an attitude and commitment that ensures them a strong position in export markets. This focus on achieving quality applies equally to the provision and outcome of training in the workplace (Porter, 1990:368; cf. Braun, 1987). German apprentice training, consequently, has been associated with the maintenance of a 'high skills, high quality' equilibrium (2) (cf. Finegold and Soskice, 1988); while the prevailing 'high correlation between training, credentials and jobs [in German industry]' (Maurice *et al.*, 1986:66) has been attributed to its success story.

In more general terms, the dual system is regarded as a major contributory factor to Germany's level of economic performance (Porter,

1992/1990:369; Smith, 1994). One of the main features of the nation's economic and training models, which is also found in all other aspects of public life, is the existence of a relatively high degree of stability between the 'social partners' in terms of their relationships, which in itself is an important and encouraging indicator, for example, for enterprises to invest in training (*The Economist*, 1994b:5). A uniform skill structure and a mutual commitment to set standards of achievement creates common goals and values that provide a basis for cooperative relations between labour and management (Lane, 1989:53; Lane, 1990:253).

The two sides of industry, employers and trade unions, have clearly defined roles in vocational training and generally are in agreement on major vocational training policy issues (Clarke *et al.*, 1994). In particular they share the aim that every person entering the labour market 'should be occupationally competent and qualified, either as a skilled worker or as a graduate from higher education' (Hayes, 1984:1). Trade unions have a keen interest in broad-based training which enhances both the stability of the labour market as well as the workers' social mobility and, consequently, demand uniform training standards and curricula. Furthermore, they are in favour of the federal government playing some role in publicly controlling the system of vocational training. Employers, on the other hand, have a vested interest in controlling the intake of apprentices and the content and organisation of training according to their own needs (Clarke *et al.*, 1994:384).

However, a negative aspect of the desire for the retention of stability and 'social consensus', which is largely codified in laws and regulations, in economic and social life, is that, in general terms, Germans have a tendency to hold on to the *status quo* because it is 'expedient and change would incur angst' (Haas, interview, 1995). The ability of Germans to depart radically from established systems and thinking would appear to be a significant challenge in itself. Both domestically and internationally,

substantial criticisms have been delivered about the future effectiveness of the dual system in its present form.

Clear disadvantages are seen to be the lengthy and difficult processes which are required to set occupational standards and to harmonise the vocational content between the training providers and the *Berufsschule* (Schelten, 1991:61; Solmon, 1992:206). In the view of Solmon (*ibid*), once these standards are set they tend to hinder dynamic change in a curriculum. Other deficiencies that have been identified include the uneven on-the-job training quality within and across economic sectors and regions (Lanfer, 1991:184; The Allen Consulting Group, 1994a:50; Marsden and Ryan, 1991:260), the concentration of training within a relatively few trades plus the fact that training places are geared to existing jobs or those in decline (Raggatt, 1988:178) as well as the narrowness and specificity of training (Heckman *et al.*, 1993:16; The Allen Consulting Group, 1994:50; Tysome, 1992) and the outdated teaching and assessment methods (Clarke *et al.*, 1994:377).

Furthermore, the occupational structures in training and employment are seen to differ considerably and as a result the permanent employment of young people in their original trade of training is not very high (Arbeitsgruppe, 1994:627; Casey, 1988:67; Kloss, 1984:110). Heckman *et al.* (1993:2) make the point that the acclaimed low youth unemployment rate in the Federal Republic is merely a direct result of (part-time) schooling being compulsory until the age of 18, a view which is confirmed by official statistical data that indicates that the unemployment problem has been transferred to the 20-25 year age group (Raggatt, 1988:178) (3).

It is also believed that the newly reformed training occupations, such as the metal engineering, electrical and commercial trades, have become intellectually more demanding than those which have not been restructured yet and, in addition, require the inclusion of skills such as 'initiative' in the syllabus. The need for higher skill levels in training (and

work) and higher formal education certificates appear to be clearly functioning as a negative social selection mechanism for the lower ability range (Arbeitsgruppe, 1994:630). Vocational training under the dual system is also believed not to cater adequately for disadvantaged groups (Nübler, 1991:11).

At a systems level, the German model has been criticised for being not flexible enough to underpin the transformation from Tayloristic industrial production to a post-industrial service economy and this problem is now being recognised widely (*The Times Educational Supplement*, 1993:16). This is compounded by the inability of the German economy to create positions in new industries - one of its historical weaknesses (Porter (1990:380; cf. Bibbee, 1994). As mentioned above, relatively few new training occupations have been designed in recent years, especially in the service sector. One of the main reasons for this is that a large number of service sector training occupations, in for example public health, social care, and tourism, are not regulated by the Vocational Training Act and are programmes normally offered by the *Berufsfachschulen* (Adler *et al.*, 1993:8). Because there is no legal basis for conducting research into these occupations, research carried out by BiBB has mainly been restricted to those occupations covered by the Act, such as the commercial trades.

Some observers of the apprenticeship system have stated that the model has lost much of its previous innovative capacity while others are convinced that it has become resistant to reform because of the established pattern of responsibilities and structures or, additionally, because it is considered to be an outmoded model that is increasingly failing to meet the demands of a modern economy (Stratmann and Schlösser, 1990:300; Geissler, 1991:69; Kutscha, 1992a:146; Greinert, 1992:71). Others refer derogatorily to this model as a 'fossilised system' (Nitschke, 1986:397). These sceptics, the majority of whom are scholars and university

researchers, all seem to agree that the dual system is in a crisis of some sort.

One suggestion put forward to make the dual system more attractive for new entrants is that apprentice training should be expanded into the service sector area and trade occupational profiles developed, replacing existing full-time vocational education courses (Heinz, 1994:120). By and large, service sector vocational training and qualifications have not been the subject of extensive research (Deutscher Bundestag, 1990) and this sector has also been coined as economically 'ill-developed' and thus sharply contrasts with the success of the nation's production sector (*The Economist*, 1994b:7).

Despite these generalised criticisms, strong support has been expressed by the federal government, the *Länder* and the social partners to retain the existent model but to modernise it on the basis of the 'duality' principles, simply because an 'alternative is non-existent' (Kuhn, 1994:32; Haase, interview, 1995). This commitment to working towards and achieving structural change extends beyond the realms of the dual system and includes the sectors of post-compulsory and tertiary education as well and was proposed in a rather impressive and almost pretentious 'catalogue of measures' developed by the Working Group on Vocational Education and published in a report by the Federal Education and Science Ministry in 1994.

The necessity for structural change is now widely accepted and amendments to the existing education and training models are the subject of discussion given a number of significant challenges facing these systems. These include German unification and European integration, and the need to reform education and training in order to increase their relevance to changing economic and social demands, topics which in part are analysed below and in the next chapter.

GERMAN UNIFICATION: CHALLENGE OR OPPORTUNITY?

On 3 October 1990 the Unification Treaty came into force, marking the inauguration of a reunited Germany. The five new *Länder* have assumed responsibility for their education systems on the basis of article 30 of the Basic Law. Article 37 of the Treaty and provides for the freedom of movement between and access to the educational systems for the citizens of unified Germany, and extends to general secondary schools as well as vocational and higher education. Academic and vocational qualifications attained in the GDR were recognised at a policy level as being equivalent to the West German reference qualifications although individuals were required to have this confirmed by the relevant bodies responsible on a case-by-case basis (Mitter, 1992:54).

Article 37 also stipulated that the reorganisation of the school system in the eastern *Länder* was to be based on the 1964 Hamburg Agreement. As a result, the new *Länder* were required to have legislation in place by June 1991 so that educational restructuring could go ahead. The West German regulatory framework for vocational training had already been extended to the new *Länder* as from 1 September 1990, *i.e.* prior to the unification treaty (KMK, 1994:25-6). This included the enactment of the Vocational Training Act and the Craft Code in the eastern *Länder* as well as the introduction of an Act on *Berufsschulen*, and these were decisive steps in the reform of vocational training in those *Länder* (Anweiler *et al.*, 1992:488-9).

Unification is a term used consistently though, in my view, inaccurately in the literature and popular press to indicate the bringing together of the two Germanies in 1990. Although the outcome of the free general elections held in East Germany early in that year was an endorsement on the part of its citizens to press for an alliance with West Germany, the main reason for this had more to do with finding a way out of the nation's social and economic state of internal disarray than from a

genuine desire to unify with its western neighbour state for cultural or historical reasons. This withstanding, the historical *opportunity* was there and is generally seen as the justification for the decision to proceed with unification (Hall and Ludwig, 1995:495). Accession is, perhaps a more appropriate term to use here, and accurately depicts the fact that in the reality of the unification process there were no equal partners (Ulrich, interview, 1995).

Some argue, quite plausibly, that West Germany has colonised the German Democratic Republic, given the speed of the process and the imposition of the West German 'standard' on the eastern *Länder* (Leysen, 1991, quoted in Hall and Ludwig, 1995:491). There may be little doubt that the GDR's transition from a central planned economy to a social market economy is nothing less than a 'big economic and social experiment that needs to be successful' (Blaschke *et al.*, 1990:4). 'Die Wende' (the turnaround) of 1990 normally refers to East Germany's accession to the German Federal Republic, but given the magnitude of the challenge of unification to the whole of Germany and the manifestation of problems associated with it, the new nation state is not likely to remain unscathed by this, either socially or economically.

In education and training, unification is considered to be the biggest challenge the country is currently facing, followed by European integration (CDU, n.d., p.4) (see below). In order to be able to analyse the responses of the new *Länder* to the problems and opportunities presented to them as a consequence of unification, the structure of the East German education system and the educational aims and philosophy require appraisal. Although there were some clear differences between the two German education and training systems, their commonalities derive from the fact that they were both the product of Germany's educational history until 1945 (Anweiler, 1987).

Permeability, a distinct East German educational aim, was incorporated into the 1965 Education Act. Under this Act, the attainment of a qualification at one educational level would automatically allow for vertical progression to the next one, since no learning pathway was to end in a *cul-de-sac* (Biermann, 1990:65; Rudolph, 1990:3). Moreover, the 1968 Constitution of East Germany guaranteed each citizen the right to receive 'continuous socialist education, training and higher training in an integrated socialist education system' (Moore-Rinvoluceri, 1973:29) (4).

After completion of pre-primary education, the majority of students entered at the age of six the Ten-Year General Polytechnical School (POS), after which there were mainly three options for study or training continuation. First, a two-year Extended General Polytechnical Secondary School (EOS) and, second, three years of study at a specialised Vocational School (*Fachschule*) which both, upon completion, gave access to tertiary level studies. Thirdly, students could enter the *Berufsschule* from the POS for a two to four-year vocational programme (see figure 9.1 below). The POS was the nucleus of a socialist and uniform education system and was assigned the task of educating all young people as all-round developed socialist personalities as well as providing a broad general education and occupation-related education (Rudolph, 1990:2; cf. Arbeitsgruppe, 1994). The general subjects of '*Bildung*' (education) and '*Erziehung*' (upbringing) in both polytechnic education and the EOS were considered in the course of the 1950s to be of central importance in developing socialist personalities (Rudolph, 1990:11). Some West German critics were quick to dismiss this as 'indoctrination' (Mitter, 1990:338).

The East German State, in developing a new education concept to fit their Marxist-Leninist orientation, saw vocational training as the core component of a uniform school system; a notion that sharply contrasted with Kerschensteiner's ideas on education and training, which was predominantly based on the tradition of craft training (cf. Biermann, 1990).

The aim of vocational training in the GDR was to train 'socialist skilled worker personalities' who were expected to continuously improve their occupational knowledge and skills in order to meet the demands of the economy forecasted in five-year periods (Rudolph, 1990:1). Learning and working were intertwined to the extent that production was a major focal point of both activities (*cf.* Bacon, 1985). This was also reflected in the fact that youth who had signed a 'training contract' with an enterprise were workers and, legally, not trainees (Rudolph, 1990). Moreover, every young person had not only the right to learn an occupation but was duty-bound to do so (Burkhardt, 1992:32).

Skilled workers occupations had a high social standing in the GDR and workers were seen as making an indispensable contribution towards the scientific-technical progress of the nation (*cf.* Biermann, 1990). Some 80% of the graduates from the POS would go on to undertake vocational training and qualify, usually after completing a two-year course, as skilled workers in one (or more) (5) of the 228 skilled worker occupations, 98 of which were subdivided into 392 specialisations (Lukas, 1991:15) (6). In the GDR, every school leaver was able to freely choose their training occupation (Rudolph, 1989:96). Some West German researchers, however, believed that many young people in fact did not complete training in a trade of their choice, disputing official East German data that this was around 90% (Burkhardt, 1992:33). The alignment of the education/training system with the labour market in the GDR and the transition of young people into the workforce was not only eased by the provision of systematic career guidance that started at pre-secondary level, but also by the fact that enterprises were legally obliged under the Labour Code to offer trainees a contract of employment six month before the end of their training (Rudolph, 1989). A major advantage of vocational training in the GDR, in the view of Rudolph (*ibid*, p.28), was that it formed 'a permanent

FIGURE 9.1

AN OUTLINE OF THE EDUCATION SYSTEM OF THE FORMER
GERMAN DEMOCRATIC REPUBLIC

Source: Department of Employment, Education and Training, 1992

part of the process of reproduction in the economy and the enterprises' (7). Consequently, the close alignment of training and work was believed to have made a significant contribution to the fact that unemployment was non-existent in the Democratic Republic (*ibid*, p.26) (See figure 9.1 above).

An important common feature between the former East and West Germanies was that they had (and still have in the new Federal Republic of Germany) an occupation-based training system and labour market. The former East German training model differed from its western counterpart in a number of important ways of which only a selected few will be discussed here in addition to the aforementioned. The industry sector in the GDR was the largest training sector with 42%, compared to 22% in the western *Länder*. This was reversed in the craft sector, which was the largest training sector in the latter country with 36%, as distinct from 16% in the GDR. In the old Federal Republic around 64% of the apprentices were trained in small and medium-sized enterprises with less than 50 employees, while in the GDR 37% of all the trainees received training in enterprises employing more than 500 staff (Jansen, 1994:8-9).

Further analysis of the occupational structures reveals that the service sector occupations were neither as well-developed nor as important in the GDR as in the former West Germany. The free occupations, on the other hand, remained relatively insignificant as both a training and an economic sector in the Democratic Republic in comparison with the old *Länder*. In contrast, the metal engineering, electrical and agricultural trade occupations were more important in the overall occupational structure and economic system of the GDR (*cf.* Arbeitsgruppe, 1994). Thus a key feature in the East German training model was that vocational training was concentrated in large industrial and agricultural combines and enterprises.

In general terms, the *Facharbeiterberuf* (skilled worker occupation) represented a uniform standard of vocational training throughout the GDR

nation and across the occupations. However, since the 1970s, standardisation in terms of the structure of the training occupations saw a shift in focus from 'mono'-occupations towards differentiation. Two main types emerged; first, the *Grundberufe* ('basic occupations'), which were skilled worker occupations differentiated into field and sub-field training specialisations and originally accessible to *Abiturienten* only (see below) and graduates of the 10th class of the POS. These rather élitist *Grundberufe*, however, became the norm in the 1980s (Biermann, 1990:91). The second type of training occupation was the standardised specialist occupation. The training content ratio of the *Grundberufe* was 60% basic:40% specialised; this was reversed in the specialist occupation (Rudolph, 1990:7).

Another key difference between the two German training models was the development of the enterprise vocational school in the GDR, after it had been introduced in Soviet-occupied German territory in 1948, and which later became the dominant type of *Berufsschule* in East Germany. These schools were state training providers and integrated with the enterprises and combines. The formation of state-owned enterprises enabled these enterprises to implement national training policy but they had responsibility also for the setting up of, and providing advice to, vocational expert committees for the more than 180 skilled worker occupations (Rudolph, 1989:28).

The amalgamation of theoretical and practical training in the enterprise vocational school was a measure that marked the beginning of the end of 'dualism' in vocational training in the Democratic Republic (*ibid*). The role of the enterprise vocational schools in aligning training and production was believed by the East Germans to be more effective than that of the traditional part-time *Berufsschule* (*cf.* Biermann, 1990). Enterprise schools, the second important type of vocational school in the GDR, developed in the 1960s and provided initial and advanced trade training as well as polytechnic education to EOS students. These two types trained

two-third of all the trainees (Arbeitsgruppe, 1994:583); and were complemented by the communal vocational school, a lesser important type of *Berufsschule*, which was a state institution placed under the authority of district councils.

The content, structure and examination requirements for the training occupations in the GDR were prescribed in state curricula (*Lehrpläne*), which had been developed, tested and endorsed by the vocational expert committees. The curricula comprised general educational, theoretical and occupational-practical elements which were drawn up on the basis of current and future demands of the economy through occupational analysis by these committees (Rudolph, 1990). Some West German educational researchers have observed that the blending of the different curricular components into comprehensive and uniform occupational training programmes in the Democratic Republic could be regarded as superior to the counterpart outcomes in the old *Länder* since they produced a closer and more direct content and organisational harmonisation (Autsch, 1995; Arbeitsgruppe, 1994:584). The alignment of theory and practice in vocational training in the former West Germany had always been a problematic issue in policy and practice (see chapter 8) and is one which is considered by East Germans to be intrinsically related to the structure and philosophy of the West German dual system of vocational training (*ibid*).

Another distinctive feature of the education system of the GDR was the possibility for those having completed class 10 of the POS to pursue an integrated course of learning available in 86 of the total number of the skilled worker training occupations, leading to both a skilled worker's certificate and the *Abitur* (*cf.* Autsch, 1995). This double qualification course was introduced in the late 1950s and catered for some 4-5% of the annual secondary school student population in the 1980s (Dehnbostel, 1992:437). While the Education Act of 1965 promoted the notion of

equivalence in status of education and training specifically, and the idea had also been consistently promulgated in education policy, critics have claimed that although in reality education and training had been aligned to a certain degree in a single programme, integration had not been achieved at all (*ibid*, p.445; Anweiler, 1987:5; Ernst, 1991).

According to Dehnbostel (1992:444), this double qualification course was an 'additional' educational pathway in terms of curriculum and organisation. Therefore, in the socialist GDR that strove for uniformity in its education and training system nonetheless, institutional and curricular differentiation existed for the purpose of catering for the gifted and privileged students, *i.e.* 'special schools' and the 'vocational training with *Abitur* course' (Arbeitsgruppe, 1994:191).

The above description of some of the key points of difference between the two German training systems clearly shows that while the systems had a common historical origin, the underpinning philosophy and the provision and organisation of education and training differed considerably in both nations in the post-war period. However, it has been argued by some scholars that both training models were essentially 'dual systems' in terms of their structure and organisation (Ulrich and Westhoff, 1995:115; Biermann, 1990:45). Although this may be true at a rather general level, a distinctive point of contrast was the GDR's vocational training policy of decisively moving away from a West German-style of 'dual' training, replacing it with a centralised model that was closely linked with a planned economy and its demands, and which set out to establish a 'unity of economy and education' (Anweiler, 1987:3; Berger, 1995). Pampus (1990:433) argues that because of this particular aim for 'unity' it is questionable whether the former East German training system can and should be described as a 'dual' system at all.

Dramatic and decisive changes have occurred in the GDR since it acceded to the Federal Republic of Germany to form a new German republic in 1990. The transition from a central planned economy to a social market economy has brought about many human, social and economic problems for the citizens of the new *Länder*. A prime concern is the level of unemployment in the new states which had amounted to a total of 538,000 workers in October 1990, a problematic situation which was compounded by a figure of some 1.8 million short-term workers (Blaschke *et al.*, 1990). However, in its 1996 annual report, the Federal Ministry of Economics estimates that 8.5-9% (around 2.7 million) of the population of the old *Länder* will be in unemployment in 1996, compared to approximately 15.5% (1.2 million) in the new *Länder* (BMW, 1996:125,127). A growing unemployment rate is a significant indicator that the economic climate is worsening in Germany and is likely to negatively influence Kohl's government's explicit aim to lift the standard of the former GDR's industrial complex as quickly as possible to that of the western *Länder* - for an alternative that was deemed non-existent.

Far-reaching industrial and economic reform was particularly desirable as, to give one example, the employment structure of the GDR in 1987 closely resembled that of the former West Germany in 1967, *i.e.* 47% of the work force was employed in the production sector and 18% in the commerce and transport sectors while, on a percentage basis, the differences in the service and the agricultural sectors between the two countries were negligible (*ibid.*, pp.5,10).

As mentioned before, the *Volkskammer* of the GDR had taken the decision, prior to unification, to extend West German vocational training legislation into eastern Germany. However, East Germany's 'adoption' of the 'dual system' was not uncontroversial (Münch, 1994). Similarly, the transference of federal structures to the eastern states had been called into question by Gobrecht, a Hamburg senator, who believed that unification

presented an opportunity to critically reflect on the concept of federalism, and perhaps make changes to it, instead of transferring '*Kulturhoheit*' rashly to the five new *Länder* as a sort of a patent remedy (Pampus, 1990:435).

Chancellor Kohl asserts that the opportunity to achieve unification could only be seized within a period of four to five months which, by implication, justified determined and swift action (*Deutschland*, 1995:E). Speed of action was a major political strategy in achieving unification and in transforming the economic and social conditions in the former GDR after the signing of the treaty. But for what purpose? Evidently, cultural and historical reasons were important incentives to press for unification but on the other hand the political advantages the merger would bring were not unsubstantial. The inclusion of 16 million eastern Germans to the Federal Republic's population would result in it having a larger population than both Britain and France, its economic and political rivals in Europe. And in geographical terms, unification would increase its territory by some 100,000 square kilometers.

In a critical paper on the economic implications of unification, Hall and Ludwig (1995) contend that economic contraction in employment and output in eastern Germany should not only be viewed as an economic measure. In their view, this was rather a vehicle for transferring the stock of productive assets and other forms of property from east to west ownership that was mandated by West German dominated unification policies. They also claim that the volume of East German commuters to West Germany (415,000 in July 1991) has implications for the future of the new *Länder* economic region, in that it causes the 'destruction of a significant proportion of the educated population' (*ibid*, p.503). From a more general perspective, the process of unification has not only caused a transformation crisis in the eastern *Länder* but has impacted heavily on the social and economic systems in both parts of the new nation, an outcome

which had not been anticipated at the time of the union (Pilz and Ortwein, 1992).

Federal budget deficits caused by the enormous costs of unification and a deepening recession that began in the early 1990s have led to increased taxes, reduced government subsidies, and cuts in social services (*The Economist*, 1996b). The *Gemeinschaftswerk Aufschwung Ost*, a special programme introduced in 1991 for boosting the east German economy, cost the federal government DM 24 billion between 1991 to 1993 (Jones, 1994:119).

Of overriding importance to the federal government was the structural transformation of the economy of the eastern *Länder* and to change the former GDR into a 'high-wage country' (*Deutschland*, 1995:25). Intertwined with this political aim, and an integral part of Germany's integration policy, was the federal government's objective of ensuring that the conditions of living in the new *Länder* were comparable to those prevailing in the rest of the nation (Pilz and Ortwein, 1990). In order to achieve this substantial state support was inevitable in terms of investment in physical and human capital, and infrastructural measures. Thus federal policies aimed at reducing the competitive disadvantages of the former GDR by dismantling old structures and buildings and rebuilding an infrastructure upon which reindustrialisation could be based. An important strategy in the reconstruction of the east was the privatisation of state-owned enterprises, a task which was legislated in the *Treuhandgesetz* of 17 June 1990 and entrusted to a federal agency, the *Treuhandanstalt* (THA), for implementation (*ibid*, p.13).

The THA has not been very successful in replacing state enterprises by new ones operating on a competitive basis in its first year of operation, as West German firms proved not to be very keen in taking over eastern German enterprises (*Social and Labour Bulletin*, 1991:223). The *Treuhandanstalt* was disbanded in 1994 but under its responsibility some

11,700 enterprises had ceased to exist in eastern Germany during the period July 1990-April 1994, through measures such as privatisation, liquidation and merging. The eastern German workforce comprised some 6 million workers in 1994, of which approximately only 1 million were employed in THA privatised enterprises (*IAB kurzbericht*, 1994:2).

The sheer magnitude of the task the Germans have set themselves is, undeniably, no sinecure especially when one considers some of the problems the new *Länder* were still facing in 1995, e.g. an extremely high trade deficit, with western Germany and abroad, registered unemployment rising to 1.1. million, and a chronic shortage of skilled workers (*Deutschland*, 1995:24) (8). This has been aggravated by a definite trend towards structural unemployment for all of Germany when unemployment reached 3.8 million (or 10%) in December 1995 (*The Economist*, 1996a) and registered over 4 million in early 1996 (*The Economist*, 1996b). This contrasts sharply with eastern Germany having had the highest growth rate in Europe (nearly 8% in the period 1991-1995), and which had been achieved largely because of a construction boom that was particularly beneficial to the construction and services industries (*Deutschland*, 1995:23).

The impact of unification on education and training has been very significant in eastern Germany. While it can be argued that the West German training model has been imposed on the new *Länder*, these states gained under the governing principle of *Kulturhoheit* autonomy over educational matters, and subsequently could implement a school structure they saw fit. A differentiated system of secondary education was introduced as from the 1991-2 school year in all the new states. However, Thuringia is also experimenting with the introduction of a *Gesamtschule*, a comprehensive school type which generally appears not to be too dissimilar to the POS (Rust, 1992). Mecklenburg-Western Pomerania is the only new state that decided to establish the *Hauptschule* as an independent

type of school (KMK, 1994:87). Overall, the *Hauptschule* is neither popular with young people nor employers in the new *Länder* (Schober, 1992:236; Arbeitsgruppe, 1994) (9).

As regards the *Realschule*, Brandenburg introduced a four grade *Realschule* while the *Länder* of Saxony, Saxony-Anhalt and Thuringia provided a *Realschule* type programme within newly established *Land* specific school types (see note 8). The *Gymnasium* was established in all new *Länder*, but in four of them it only covers grades 5-12, instead of the usual 5-13 as in western Germany (KMK, 1994:88). In eastern Germany, the *Gymnasium* has proven to be school type in demand among young people. A 1991 IAB survey showed that 48% of all the students in year nine or ten of compulsory schooling wanted to obtain the *Abitur*, while a similar percentage intended to achieve completion of a *Realschule*, compared with only 5% showing an interest in *Hauptschule* studies (Parmentier *et al.*, 1994:35). It is remarkable that these far-reaching reforms in secondary education in the new eastern states, appear not to have triggered an upsurge in interest in educational policy by politicians and the general public in either the new states or the old *Länder* (Arbeitsgruppe, 1994:217).

There appeared to be a considerable degree of consensus and optimism among West German policy makers that the 'dual system' could be introduced relatively easy and quickly in the eastern states, because of the perceived similarities in the training systems of west and east, and despite the fact that historical examples to draw from were non-existent (Schober, 1994:3; Wordelmann, 1992:13; Seyfried, 1992:161; Brinkmann, 1995:16). It is now commonly accepted that the transformation process has been underestimated and still is incomplete (Degen and Walden, 1994b:2065; Schober, 1995b:39). In its 1991 Vocational Training Report, the federal government announced its intention to introduce an 'skills incentive programme' in the new *Länder* which it considered a prerequisite

for transforming eastern Germany into a competitive economic region, nationally and internationally, and particularly given European integration (BMBW, 1991a:1).

The federal government's immediate policy priority was to ensure that vocational training in the new eastern *Länder* is adjusting to the needs and conditions of a social market economy. This required the development of small and medium-size enterprises, which are the backbone of the economy in the old *Länder* and providers of the majority of training places, but which have been relatively poorly developed in the former GDR to date. In addition, the federal government initiated the development of programmes aimed at promoting investments in inter-company training centres and improving the skills of trainers in vocational training. These measures were complemented by labour market training programmes largely financed by the Federal Employment Office.

The collapse of many enterprises and combines in the eastern *Länder* in the post-unification period caused a dramatic reduction in available training places for young people and created a situation unacceptable to the federal government. Intervention was therefore unavoidable and took place in the form of government financed initiatives, such as the '*Gemeinschaftsinitiative Ost*' in 1993, targetting an increase in the capacity of training places at the inter-company training centres and training firms. In 1993/4, an additional 10,000 training places had been funded by the federal state (Berger, 1995) (10). Its policy intention, however, is not only to reduce the number of those training places over time, but primarily cut down its public funding of training places, as this conflicts with an employer-led (and financed) training system (Autsch, 1995).

Under the present conditions, federal government intervention in vocational training in eastern Germany is seen as a political and economic necessity which is expected to continue for some time to come, though deemed to be a temporary solution (*Pressemitteilung BiBB*, 1994:1; Schmidt,

1994:1). There are clear signs, on the other hand, that the training structures are changing considerably in the new *Länder* and becoming more aligned to those in western Germany. The craft sector, for example, is now the largest industry training sector in the eastern *Länder* and partnerships between training providers, industry and Chambers (*Ausbildungsringe*) are quite common (Schober, 1995b:43; Ulrich and Westhoff, 1995).

Although this may be seen as a promising development by the *Bund*, it appears that the federal government's intention to bring the standard of living and productivity in the east quickly up to that of the West is an unattainable goal in the short term. The Prognos report forecasts that this may not be achieved before the year 2010 (Brinkmann, 1995:18). Not insignificant in this respect is the fact that the economy of eastern Germany is developing into a pattern of 'economic islands' of *Treuhand* enterprises and *Treuhand*-privatised enterprises. Moreover, industry-based training provision for the service, commercial and free occupations is either poorly developed or almost non-existent, and thus requires expansion within the context of a social market economy.

Of considerable concern to the German authorities is that the employers in the eastern *Länder* are showing an unstable commitment towards the provision of vocational training (Degen and Walden, 1994b:2065). This was reflected in 1994 figures which showed that the supply-demand ratio for in-company training for national trade qualifications was 1:2 (Schober, 1994:5). It is expected that enterprises are going to further reduce their training capacity, the main reason for this being the high costs involved and because employers expect to need less skilled workers in the future (Degen and Walden, 1994a:340). Overall, this trend is quite alarming, in that the future of vocational training in the new *Länder* depends on both the economic development of the region as well as the economy's need for skilled workers (*ibid*, p.348).

The transition from training to employment, which was in the GDR a course of natural progress, has now become a more problematic affair for many young people in the eastern German region. In September 1993, 75% of those unemployed under the age of 25 had completed an apprenticeship, and amounted to 80% for women (*ibid*, p.21; Degen, 1994:73). Research conducted by BiBB has revealed that in the immediate post-unification period, one in every ten persons in the 20-24 age group intended to either move or commute to western Germany to seek a job in their training occupation with dissatisfaction with career opportunities in the east being the main reason for this (Kloas, 1993:8,10). However, this eagerness has declined markedly in recent years and survey data indicates that the 'mobility rate' is now only one in every four people (Schober, 1994:17).

BiBB research currently suggests that the majority of the East German skilled workers who started their training in 1989/90 and are practising in their trade of training have an optimistic outlook (Ulrich and Westhoff, 1994:20). In a similar vein, the dual system of vocational training is enjoying, again according to BiBB, a remarkable popularity among youth in eastern Germany. At the end of the 1994/5 school year, some 75% of all the male students in the last grade of junior secondary school were showing an interest in commencing apprentice training in the dual system, compared with 60% of the female students (*Pressemitteilung BiBB*, 1995; Degen and Walden, 1995b). While apprentices in the new *Länder* are reasonably satisfied with the overall quality of training in the dual system, they believe that improvements could be made in the area of aligning the teaching plans and the curricula of the two main training providers in the dual system, *i.e.* the *Berufsschule* and the enterprise (Krekel-Eiben and Ulrich, 1994:25).

The results of a recent opinion poll, conducted by the Allensbach Institute for Opinion Research, has revealed that unification is generally

regarded by the East Germans as having changed their lives positively. The majority of the respondents believe that they are better off economically in a unified Germany and that 'life' in general is better now than it was before '*die Wende*' (Noelle-Neumann, 1995:42-3; *The Evening Post*, 1995). These positive assessments are counterbalanced by views suggesting that the opposite might be closer to the truth and it has been reported that the East Germans feel downgraded as second-class citizens in an achievement-based culture dominated by western values and institutions (Kolinsky (1993:15; Rust, 1992). This often publicly displayed West German superiority, has, as it appears, contributed to some East Germans nick-naming the West Germans as the '*Besserwessis*' ('they who know better'), instead of just '*Wessis*' (westerners). It is of some interest to note here that researchers in the former West German republic have, by and large, ignored developments in education and training in the east, and only very recently have started taking a professional interest (Biermann, 1990:13).

Biermann particularly criticises the lack of interest on the part of West German policy makers, industrialists and educationalists in the education and training system of the former GDR at the time German unification was negotiated and implemented (*ibid*, p.19). German education and training is currently facing substantial challenges and is in a state of flux. Therefore, it appeared to be a reasonable assumption to make that the quality and the responsiveness of the education and training systems in the new German nation state could possibly be enhanced by combining the strengths of both systems. Clearly, the East German system was by no means perfect, and consensus existed among East Germans themselves that educational reform was urgently needed (Arbeitsgruppe, 1994:216). But on the other hand, some aspects of education and training in the former Democratic Republic should at least have been considered and examined for retention. Educational researchers at the Max Planck

Institute for Human Development and Education in Berlin have strongly criticised the federal government's rush to change the GDR's education system almost overnight to the 'standard' of the west. They believe, for example, that perhaps the comprehensive POS school should have been retained, as this school type, as they see it, is better suited for catering to the direct needs of the region than the traditional German tripartite secondary school system (*Frankfurter Rundschau*, 1995).

There are some other specific elements in education and training in the former GDR that should have attracted more attention from West German politicians. It has already been mentioned that work and training were closely connected in the GDR society, and was reflected in the socialist education concept. Concepts and practices pertaining to the bridging of the academic/vocational divide at all levels of education is not only a current policy issue in western Germany, but also a point of discussion among policy makers world-wide. For this reason, the fact that the GDR's experiences in this area have not been examined by decision makers in the west is perhaps best described as a lost opportunity.

This is reinforced when it is taken into account that enterprises in the new *Länder* have been critical of the disestablishment of the enterprise vocational schools by the *Berufsschule*, which is seen as a regressive step because the provision of theory and practice learning at an enterprise premise is now being delivered at different places. The integration of practice and theory, one of the perceived strengths of the GDR's education and vocational training systems, has now been broken up (Blötz, interview, 1995; cf. Arbeitsgruppe, 1994). Such a comprehensive curriculum, as was in place in the former GDR, has only led to some tentative discussions in the old *Länder*. However, some authors in the west are arguing that the East German example is a desirable curricular and pedagogical aim, in what is one of the problematic areas of the dual system (Blötz, interview, 1995; Benner and Püttmann, 1992).

Moreover, in the light of the on-going debates in Germany about the equivalence in status of vocational and academic learning, double qualification courses, such as the East German 'vocational training with *Abitur*' course, could at least have been considered for introduction or testing in the German training model (Pampus, 1990:440-1) especially as its purpose and structure essentially constitute a form of vertical 'inner' differentiation, a policy measure which is now being pursued (Kutscha, 1994:53) (see below). After unification, policy makers in the new *Länder* contemplated retaining the 'vocational training with *Abitur*' course but the Chambers opposed this intention and refused to register training contracts pertaining to those programmes (Berger, 1995:30). This decision appears to have been merely a political stance, as the DIHT and BiBB have recently proposed 'framework' models (see chapter 10) which in terms of purpose and concept are not too dissimilar to the former East German course. Furthermore, it is now widely recognised in Germany that vocational trainers in the former Democratic Republic were pedagogically better qualified as their counterparts in the old *Länder* (Kroyman and Lübke, 1992:35; Neubert and Steinborn, 1994). The level of skilled workers having completed vocational training was also much higher in the former GDR (95%) than in the old *Länder* (84%) (Jansen, 1993a).

East Germany's deliberate divergence from a 'dual' system of vocational training after the Second World War was a shift ideologically underpinned and driven by a socialist planned economy model. The positive aspects of training in the GDR have been highlighted for the purpose of making two related points in particular. First of all, to criticise the federal government's unilateral and 'uncontrolled reconstruction of vocational training in the new *Länder*' (Lehnigk, 1992:68), and to bring to light that, as a logical consequence, the inherent problems associated with a 'dual' system have also been transferred to these *Länder*.

Thus, in the area of general secondary education, while it was expected in the western *Länder* that the new eastern states would adopt the existing school types of the west, they were surprised to find that most *Länder* had chosen to introduce modified types of school (cf. Autsch, 1995). Secondly, both the federal and the *Länder* governments have failed to take the opportunity to reflect critically upon their education and training systems immediate before and after unification and seemed to be interested only in pursuing a policy that ensured 'western dominance' in all aspects of society, and including education and training, despite the fact that some politicians were convinced in 1990 that certain aspects of education and training in the GDR were well worth retaining in a united Germany (Wilms, 1990:728).

THE CHALLENGE OF EUROPEAN INTEGRATION

The idea of a unified Europe had been put forward by pioneers such as Jean Monnet and Robert Schumann in the early 1950s, and must be understood primarily as an attempt at reconstruction in a war-devastated Europe. A decisive step towards European integration was the establishment of the European Economic Community in 1957 in order to protect the economic interests of the participating member states. In 1991, the leaders of the 12 European Community nations agreed on a treaty to speed their economic, and political, integration. The completion of European Internal Market, in which there was greater freedom to live, work or study, and which would see a strengthening of cooperation among the member states, became now a pressing European policy aim in view of an increasing globalisation of the economy and increasing social and political interdependencies of nation states. On 7 February 1992, the European Council signed the Treaty on European Union, or Maastricht Treaty, which became a landmark event in the history of Europe. This

treaty came into force on 1 November 1993, after the voters of each member state approved it by popular referendum.

After the Treaty had been ratified, the countries of the European Community were now members of the European Union while the European Council became the policy making body of the European Union. The Council had already decided at an emergency summit in April 1990 that East Germany was to be automatically incorporated into the then European Community upon completion of German reunification. In that same year, a report of a German parliamentary commission of inquiry into the future education policy advised the *Bundestag* that it would not be desirable for national education systems in Europe to be harmonised, stating categorically that the diversity of systems must be retained, although it would be complemented by development of a European dimension in education and training (Deutscher Bundestag, 1990:278; BMBW, 1994a).

The Union's move towards 'European space for training and qualifications' requires an enhanced transparency of qualifications and systems of education and training (Commission, n.d., p.11). Measures such as the mutual recognition of qualifications and courses, the promotion of training to develop skills in dealing with new technologies and the advancement of the linguistic abilities of European citizens, as well as the continuing training of teachers and trainers are key features of the Union's education policy (Laur-Ernst, n.d., p.3). These measures have been designed to primarily enhance the mobility of labour and, secondly, to increase member state's understanding of other countries' systems. European Union policy making has, to date, been limited to issuing guidelines and promoting measures only. The rationale for its restricted authority is based on the principle of subsidiarity, which entails that national responsibilities in education and training policy are not to be

undermined by the Commission's policy making powers (*cf.* Commission of the European Communities, n.d., p.16).

In view of the above developments, and in considering the overall importance of vocational training and education in the process of European integration, it will almost be unavoidable that a certain degree of harmonisation is going to take place (Benner, 1992:25). The German federal government has recognised this and promotes European cooperation in its vocational training policy, demanding that vocational training and education be 'Europe-focussed' (Münch, 1994:89; *cf.* Benner and Püttmann, 1992). Consequently, recommendations have been put forward in Germany to increase the efficiency of tertiary level study by overhauling the structures of the degree courses in a bid to bring those more in line with the rest of the member states of the Union (Deutscher Bundestag, 1990). At the same time, both European integration and German unification are putting increasing constraints on education and training in unified Germany during a period of economic recession and low birth rates in the whole of the nation.

Qualifying the workforce is therefore an important and imminent policy aim of the federal government, and it is likely that education and training will be the subject of further reform attempts as the need for mobile skilled labour is expected to increase because of continuing European integration (Der Bundesminister für Bildung und Wissenschaft, 1991:84). Equally important, however, is the fact that European integration is posing a significant challenge to the German dual system of vocational training. A recent discussion document of the European Commission on vocational training in the European Community in the 1990's, led to the federal government's reaction that it intends to retain its dual system (BMBW, 1994a:13). At the same time, 'there is a feeling in Germany that something needs to be changed in the [dual] system' (Lauterbach, interview, 1995), so that it is seen to have formal parity as a training model

with the English and the French systems, although change is not so much required in terms of the content of training (*ibid*). The European five-level system of vocational training, for example, is based on the French model, while the English are now operating, and further developing, a competency-based training and assessment system.

Whether or not the member states of the European Union will retain in the long(er) run the same level of authority over national education and training as they have now remains to be seen (Lübke, interview, 1995). Under Articles 126 and 127 of the Maastricht Treaty, the European Commission has been granted some regulatory powers over education and training respectively (*Education & Training*, 1992:4-5), which in the years to come may perhaps be extended. The main challenge ahead for Germany in education and training, it appears, is to examine the feasibility of the intended reform measures that have recently been announced by the federal government, and to implement those changes which have political support.

TOWARDS A RADICAL REFORM OF EDUCATION AND TRAINING?

According to Greinert (1994a:371) incremental change should no longer be considered as an adequate problem-solving strategy in overcoming the present difficulties in education and employment in Germany. The correspondence between the education, training and employment systems, in his view, need to be looked at and requires redefinition and reorganisation. The need for an 'integrated' approach that aims to improve the alignment between all these sectors has also been recognised and advocated by labour market experts (Parmentier *et al.*, 1994:7). Each one of these sectors can be seen as having its own set of problems but that are related to and also reinforce problematic issues in the other areas. Generally speaking, *Länder*-controlled general secondary

education is not undergoing any significant changes except in the new *Länder* because of the KMK Hamburg agreement and in some of the old *Länder* where experimentation continues with a number of non-mainstream school types (Arbeitsgruppe, 1994). Also a great number of experiments have been carried out at senior secondary level over the years aiming at the integration of general education and vocational courses as well as the award of double qualifications (cf. BLK, 1990).

The tripartite secondary school system, however, continues to remain the dominant school model in the majority of the *Länder* and employer representative groups in particular are in favour of a clear articulation of the boundaries between the three tiers (cf. BDI *et al.*, 1993). An increasing social demand for higher levels of general academic education is, in the view of Lutz (1991:31), governed by a 'meritocratic logic'. By this he means that the allocation of social (and economic) status depends on the certification of school examinations results which, in principle, can be achieved by every student but in reality is attained by those possessing and using to their advantage individual 'social and cultural capital' (cf. Olk and Strikker, 1990).

Opportunities for upward mobility for those who have participated in apprenticeship programmes exist in the form of nationally recognised intermediate-level vocational courses, *i.e.* for *Meister* and *Techniker*, for which, according to Maurice and co-authors (Maurice *et al.*, 1986:37), there is considerable social competition. These limited options and the non-equivalence in status between general academic education and vocational education and training certificates continues to discriminate against those people completing vocational courses in terms of 'entitlements' and career advancement possibilities (cf. Dybowski *et al.*, 1994). Trade training in particular is increasingly being identified as a 'second rate' choice by school leavers and subsequently pupils tend to stay longer at school and

aim for higher education entry qualifications that will give them more options in terms of further study, career and remuneration.

But while apprentice training is becoming a less attractive option to young people, the labour market needs, at the same time, both more and higher skilled workers, a situation aggravated by Germany having one of the world's lowest birth rates (Parmentier *et al.*, 1994:15; Kohl, 1993:9). This complex set of interrelated problems has led to the realisation on the part of all the major role players that a reform of post-compulsory training and education is a pertinent policy aim (OECD, 1994b:119; Adler *et al.*, 1993; Parmentier *et al.*, 1994). A prime demand placed upon the dual system by the labour market is to ensure that there is a sufficient uptake of new entrants (11) but this is difficult to achieve without any intervention within the context of the given demographic realities and changing study selection patterns. The decision-makers appear to agree that the dual system of vocational training should be modernised for the purposes of both making it more attractive for young people and, secondly, to increase the quality and the relevance of training in the light of the demands of the modern workplace. The reform measures are primarily set to target the design and implementation of a differentiated and transparent dual system that provides its graduates with opportunities to pursue occupational pathways.

The notions of 'inner' and 'outer' differentiation are central elements in this policy programme (12). The former term encapsulates an orientation towards a flexible organisation of the curricular, didactical and timetabling aspects of vocational training and promotes the teaching to different ability groups (*e.g.* *Abiturienten* and *Hauptschule* graduates) without either compromising the national training standards or changing the entry requirements (*cf.* Keune and Zielke, 1992). 'Outer' differentiation, on the other hand, relates to a change in relationship between the training model and other education sectors at a systems level (Kloas, 1994:138-141; BMW,

1994b:4-6); and is relevant because an increasing social demand for education is forcing the dual system to compete with the other education sectors over new entrants. An example of this trend was seen in 1990 when the number of tertiary students surpassed those of apprentices for the first time (BDI *et al.*, 1992:13). The concept of 'additional qualifications' (13) is an example of 'inner' differentiation that is currently being developed and entails the certification of particular skills, the design of which is expected to increase the job prospects of apprenticeship graduates (BMBW, 1994b:4).

A major challenge ahead for Germans in the area of vocational education and training is clearly whether these progressive reform concepts will be politically and professionally acceptable. In responding to the emerging shift towards individualised learning, flexible course delivery and 'differentiation' in general, Kutscha (1992a:149) states that 'only a complex organised system itself is able to sufficiently prepare for an ever complex growing industrial society'. The major role players, he claims, are clinging on to the concept of 'duality' for mainly ideological reasons although reality demonstrates that the dual system in fact has already developed into a 'plural training system' (*ibid*). Others are convinced that the concept of the 'dual system' is being promoted and used wrongly at present as a 'reform instrument' to modernise vocational training because the concept, it is believed, is more suitable for designing and building a new vocational training system (Geissler, 1991:73).

'Permeability' is another concept central to the recent reform intentions that relates to both the ideas of 'inner' and 'outer' differentiation, and essentially is a concept to increase qualification attainment levels and enhance worker mobility. As to the interior dimension, a number of options are currently available for obtaining formal certification of occupational competencies of which the first one is the completion of an apprenticeship in a recognised training occupation. Second, under the provisions of the Vocational Training Act, unskilled and semi-skilled

workers can sit an external examination (*Externenprüfung*) after completion of relevant work experience double the time of what is required for an apprenticeship in the trade area they want to sit the examination in. However, this time-serving requirement can be waived upon demonstration by an individual that the required knowledge and skills were acquired in a different but acceptable way (Hecker, 1994:1).

The purpose of this arrangement, however, should be seen primarily as a measure to formally qualify a proportion of the around 1.6 million unskilled Germans in the 20-30 age group. Each year some 25,000 individuals pass an external examination under this scheme and are subsequently awarded a skilled worker's certificate (*ibid*). Under the provisions of the 1969 Employment Promotion Act, retraining is available to the unemployed who have the length of the normal training time in a recognised occupation reduced from three and a half to two years and which is funded by the federal government (Bock, 1993:97). Retraining is thus an 'alternative' training path regulated by public policy and could be considered, according to Krekel-Eiben (interview, 1995), a way for enterprises to withdraw from their 'social obligation to provide vocational training'.

The institutional organisation of the transition from training to employment in Germany has both been commended and criticised, within as well as outside the Federal Republic (see above). Traditionally, the completion of an apprenticeship was almost an guarantee for employment as a skilled worker or at least secured the more attractive positions in unskilled or semi-skilled work (Lex, 1995:205). The standard transition patterns of school leavers were to progress from either the *Hauptschule* or the *Realschule* to vocational training and then into employment, while it was customary for *Abiturienten* to enter the workforce after completion of tertiary level studies, all constituting a double transit (Schober, 1995a:71;

Schober and Tessaring, 1993:7) (13). There appears to be general acceptance that these patterns are subject to considerable change now and it is interesting to note that only around 35% of the *Gymnasium* graduates moved directly into higher education in 1990, compared to 55% in 1975. While there is a trend among *Gymnasium* graduates, and those graduating from a *Realschule* to increasingly opt for entering an apprenticeship programme after junior secondary school, the overall trend shows that youth are less prepared than before to commence trade training, mainly because of a lack of further study and career opportunities (cf. Schober and Tessaring, 1993). Apprentices holding higher level entry qualifications tend, for example, to regard their training as a transition stage for tertiary level study (Tessaring, 1993:143). However, there is also a body of recent empirical research that is contesting the existence of a progressive move towards 'individualised transition patterns' and claims that the standard patterns continue to dominate (Mönnich and Witzel, 1994:268).

According to Rose and Wignanek (1990:102), German youths are making a relatively smooth transition from training to employment as 83% of those completing initial trade training continue in the same occupation and/or with the same employer. Blossfeld (1991:9), basing his observations on studies conducted in the 1980s, points out however that the degree of mobility between occupations and sectors was lower in Germany than in any other country included in those studies. A BiBB survey showed that only less than half of its respondents achieved full-time employment in their training occupation while around 20% had to find work in a different occupation (Olk and Strikker, 1990). Another study, jointly conducted by BiBB and IAB, obtained far more favourable results as around two-thirds of the apprentices in the old *Länder* were offered a job after they completed their training, whereas in the new federal states it was even three in every four graduates (Jansen, 1993b:29).

Recent research findings also indicate that the transition phases youth follow are now intentionally being prolonged and marked by a 'multitude of stations and passages' (Parmentier *et al.*, 1994:9; *cf.* Mertens and Parmentier, 1988) (15). This trend appears to relate directly to the occurrence of 'transitions from early adulthood and early careers becoming increasingly disorderly and less predictable than in the past' (Evans and Heinz, 1995:3). Problems associated with these changing transition patterns are seen to derive mainly from two factors. First, there is a considerable increase in the levels of unemployment of those who have completed an apprenticeship. In 1993, one in every six graduates, or more than 115,000 people, in the old *Länder* became unemployed after training completion which was a 32% increase on the previous year, while 23,900 young adults were registered as unemployed in the new *Länder*, an increase of 50% on the 1992 figure (Alex, 1994:79; Zedler, 1994:50). And second, social and economic demands for higher levels of education, are culminating in a tendency among youths to postpone their commitment to educational and career pathways (Tessaring, interview, 1995).

This situation is being compounded by the fact that young people are more and more lacking a definite orientation with regard to their occupational future (Schober and Tessaring, 1993:18; *Stern*, 1993:99). While Evans and Heinz (1993:157) praise the strong institutional structures for transition in Germany, they believe that one of its main weaknesses is the lack of guidance and support for young people to develop individual pathways within the overall institutional framework.

Having considered the issue of the permeability of the German education and training systems and the occupational destinations and mobility of skilled workers in rather broad terms, the question to be asked now is what are the future labour market requirements in Germany? The Federal Employment Office (IAB) in conjunction with Prognos, a Swiss research institution, have forecast that in 2010 approximately 72-73% of the

German labour force would need to have completed initial trade training or a course of further training while 17-18% would need a degree from either a university or a *Fachhochschule* (Tessaring, 1994:5) (see figure 9.2 below). The number of higher and highly skilled jobs are expected to increase until the year 2010 by some 4 million which coincides with a decline in unskilled jobs by around 2 million (*ibid*, p.10; Blossfeld, 1991:3).

A stronger focus on service-oriented activities is being forecast and it is believed that 72 out of every 100 employees in the workforce will be working in the service sector by the year 2010 (*Stern*, 1993:105). The number of jobs for those having completed study/training in the dual system, the *Fachschule* or the *Berufsfachschule* could, according to IAB/Prognos calculations, increase by 1,6 to 1,8 million, compared to a possible growth of between 1,3 and 1,6 million employment possibilities for degree holders (Tessaring, 1994:5).

FIGURE 9.2

THE QUALIFICATIONS STRUCTURE OF THE LABOUR FORCE IN 1991 COMPARED WITH THE LABOUR FORCE NEEDS IN 2010 EXPRESSED IN PERCENTAGES

	1991	2010
Apprenticeship/Berufsfachschule	59.1	62.6-63.3
Fachschule	8.4	9.8
Fachhochschule	5.1	5.6-5.7
University	8.2	11.1-12.3
Without formal training	20.2	9.7-10.1

Adapted from: Tessaring, 1994:12

It is expected that until the year 2010, 2 million jobs will be lost in the manufacturing sector, a trend which will offset an increase of more than 4 million jobs in the commercial, administrative and service sectors

(Blossfeld, 1991; *Stern*, 1993:108). IAB/Prognos predicts that by the year 2010, 28% of jobs will be in the production sector, 37% in the primary service sector (e.g. retailing, sales, transport, cleaning) and 35% in the secondary service sector (e.g. management, research and development, consultancy, teaching). The latter sector is expected especially to expand steadily until the year of 2010 (Parmentier and Plicht, 1993:68). This would result in an increase of more than 62.5% over the period 1987-2010 in a sector of the economy Tessaring (1993:155) classifies as 'human capital intensive'.

An IAB report predicting future development trends of the German labour market until 2010 foresees that higher demands will be placed on individuals' occupational and social 'qualifications' (16). The IAB also expects that further education will become increasingly important and that there will be an increased tendency towards internal labour markets. The future labour market may become less strictly regulated, while it is likely that employees' are expected to demonstrate more flexibility in carrying out their jobs (Chaberny *et al.*, 1992:27). Additionally, the report claims that a trend towards a broadening of occupational foundation training is likely to continue while the overall level of school-based and on-the-job training is expected to increase. Lastly, the report foresees that the integration of university graduates in the labour market will continue to remain problematical (*ibid*, p.28) (17).

A KMK prognosis about the total number of students graduating in 2010 from the three main types of general secondary school in the former West Germany reveals that the total number of *Abiturienten* and *Fachhochschulreife* holders will increase to 140,000, compared to a gradual decrease in the number of *Hauptschule* and *Realschule* leavers to a total of 203,000 and 220,000 respectively by the year of 2010 (Claessens *et al.*, 1989:347). A 1994 BLK report on the employment opportunities for graduates in the same target year included an important recommendation

when suggesting that the public service award system should be achievement-based and not focussed on entitlements (*Wirtschaft und Berufserziehung*, 1995:60).

The German dual system of vocational training is thus facing what appears to be a number of important challenges. And it seems that there is a growing and substantial degree of consensus among policy-makers, federal advisory bodies and the interested general public on the need to consider adjusting the structure of the dual system to meet modern-day economic and social requirements. It is believed by policy-makers that this is achievable by differentiating the inner and the outer structure of the training model (see above, and next chapter) in such a way that neither the overall uniformity of the system is compromised nor standards lowered. This intention is considered by one observer as no less than breaking a 'taboo' (Lipsmeier, 1991:531).

However, the main test is to enhance the system's relevance to changing social and economic demands in education and training. In this respect, it is pertinent that the 'strategic position' of the dual system vis-à-vis the other education sectors and the labour market and employment systems is being overhauled. The next chapter will look at a number of proposals which are intended to strengthen the links between the dual system and other education and training sectors and can be seen as tentative attempts to establish a comprehensive 'framework' model for education and training in Germany.

NOTES

1 According to Reuling (1994:6), youth unemployment levels in the West Germany is far lower than in any other country of the European Union, the former being at 4.2% while the average in the Union comes to 18.4%.

2 The term 'equilibrium', according to Finegold and Soskice (1988:22), denotes 'a self-reinforcing network of societal and state institutions that interact to stifle the demands for the improvement of skill levels'.

3 Raggatt (1988:178) refers here to the increase of the unemployment rate from 6.5% to 14% for the named age group in the period 1974-1985. Recent figures on the age distribution of unemployment show that 2% of youth under 20 were unemployed against 11.1% in the 20-24 age group in the old *Länder* in 1993. For the new *Länder* these percentages were 2% and 9.7%, respectively (Statistisches Bundesamt, 1994:95).

4 Prior to the establishment of the GDR in 1949, an anti-fascist education Act was introduced in the eastern occupied territory of Germany in 1946 which aimed to 'democratise the German school'. This piece of education legislation was followed in 1959 by the 'Act on the Socialist Development of the Education System in the GDR' which, for example, saw the announcement for the development of the East German 'polytechnic' concept (Biermann, 1990:60,63).

5 The findings of a joint BiBB/IAB survey conducted in 1990 show that 12% of the East German workforce completed two apprenticeships in 1990, prior to unification (Jansen, 1994:7).

6 In 1964 there were 658 training occupations in the GDR, compared to 632 in the former FRG in the same year (Pampus, 1990:437).

7 Prof Dr Wolfgang Rudolph was the Director of the Central Institute for Vocational Training, which was BiBB's counterpart organisation in East Germany until unification.

8 In 1993, there was a total of 6 million workers in the former GDR, as distinct from 9.2 million in 1989 (Degen and Walden, 1995a:40).

9 New secondary school types have been developed in the new *Länder*, i.e. the *Mittelschule* in Saxony, combining the *Haupt-* and *Realschule*, the *Sekundarschule* in Saxony-Anhalt, covering grades 5 to 9 or 10 and which is with the *Gymnasium* a standard school type in that *Land*, and the *Regelschule* in Thuringia, also delivering teaching for grades 5 to 9 or 10. In Brandenburg a qualification comparable to the *Hauptschule* leaving certificate can be attained at a *Gesamtschule* (KMK, 1994:87,90-1).

10 In the period 1990-September 1994, more than 75,000 young people received replacement training in vocational training centres as an alternative to unprovided on-the-job training, which was paid for by the federal state and amounted to DM 1.85 milliard (Ulrich, 1994:3).

11 Vocational training in Germany can be described as supply-driven as it has a strong focus on the number of youths entering the labour market in a given year, which is subject of detailed analysis in the annual vocational training reports published by the Federal Ministry of Education, Science, Research and Technology (Rose and Wignanek, 1990). However, medium- and long-term education planning does not exist in Germany (OECD, 1994b:116).

12 'Inner' differentiation refers to tailoring flexible and alternative teaching approaches to students of different abilities. An example of 'outer' differentiation is the allocation of primary school students on the basis of aptitude, achievement and parents choice to a particular type of secondary school (Projektgruppe Schlüsselqualifikationen in der beruflichen Ausbildung, 1994:67-8).

13 See note 4 of chapter 8.

14 Although more than half of the *Realschule* graduates entered an apprenticeship (57%) in 1990, a significant proportion (21%) commenced studies at a *Berufsfachschule* or a *Fachschule*, while 10% moved on to a *Fachoberschule* or *Fachgymnasium* (Schober and Tessaring, 1993:8).

15 Heinz and Evans (1995:6) have identified four types of transition behaviour, i.e. 'strategic', 'step-by-step', 'taking chances' and 'wait-and-see' and have come to the conclusion in their research that the dominant trajectories in Germany are the first two mentioned.

16 Note 4 in chapter 8 refers.

17 According to a *Stern* survey, 57% of all the industrial and 27% of all the service sector companies will employ over the next two to three years less or no academically educated personnel at all (*Stern*, 1993:100).

CHAPTER 10 TOWARDS AN OCCUPATION-BASED 'FRAMEWORK' MODEL?

FURTHER VOCATIONAL TRAINING IN GERMANY

Whereas the German dual system of vocational training could be described as a 'state-controlled market model' (Greinert, 1988:149; Green, 1991), further vocational training is predominantly organised on market principles. Employer representative bodies continue to assert that this system should remain centred around the qualification needs of the economy and reject any form of regulation imposed by the federal state as such intervention would, it is believed, lead to both power and efficiency losses (BDA, 1993:90; Gottleben, 1991). The major political parties (*i.e.* CDU/CSU, FDP and SPD) basically endorse the employer bodies' general policy position on further vocational training, although it is recognised politically that the transparency and the efficiency of this sector require improvement (*Wirtschaft und Berufserziehung*, 1994:377-8). The trade unions, on the other hand, press for increased state intervention which they believe is necessary in order to curtail the dominant influence of the employers. The DGB believes that further vocational training is a public responsibility and thus invokes the introduction of a further vocational training act (Lübke, 1992:6). Legislation, in their opinion, would be an essential instrument to ensure that the quality and the quantity of further training is safeguarded while, at the same time, it is expected to have a prohibitive effect on employer tendencies and practices of focussing too strongly on their short-term business interests (*ibid*; Gottleben, 1991).

The trade unions take the view that nationally recognised further training occupations should become a central component of the German further training system and recommend that BiBB, which already has statutory authority for developing these training occupations under the

Vocational Training Act of 1969, should play an extended role in this area (Positionspapier, 1992:3,15) (1). Some interventionists are advocating that a '*Bundesinstitut für Berufsbildung und Weiterbildung*' be established to accurately reflect this change (Gottleben, 1991:253). A point of concern expressed by the trade unions with regard to the existing further training ordinances is the considerable differences in quality, range and currency (*ibid*, p.10). A second point is that the occupations are not being assigned consistently to qualifications levels (*ibid*, p.11); an issue which was confirmed as problematic by one BiBB employee since, for example, the occupation of '*Industriefachwirt*' (industrial business specialist) has a total of 17 nationally recognised further training occupations which it competes with in terms of the qualification level and comparable occupational destinations (Blötz, interview, 1995). It is therefore important, in the view of the trade unions, to review and rationalise the existing arrangements with regard to national further training occupations and use its revised format as a basis for regulating local and industry-specific courses of further training (2).

Both the inauguration of a further vocational training act and a system of nationally recognised further training certificates are favoured by BiBB as well (*cf.* Pütz, 1995). The main reason for the former requirement, or alternatively an amendment to the Vocational Training Act, is to have a legislative basis for the inclusion of further vocational training in a single organisational system based on duality principles. The expansion of the dual system into the post-compulsory sector would see enterprises, Chambers and the *Berufsschulen* all, again, participate in partnership (Schmidt, 1993:149). An extension of the latter's role under this scenario could arguably result in raising their profile among 'equal partners' (Bader, 1990).

Moreover, BiBB believes that this move could see vocational training policy gaining in importance in relation to the traditionally

predominant public policy areas of secondary and higher education (*ibid*, p.43). As it is now widely recognised in Germany that further vocational training is becoming more important than apprentice training, the idea of 'sectoral alignment' between the named sectors appears to be a logical progression (Geissler, 1991; cf. Greinert, 1992). This combining would basically benefit both areas since the dual system is believed to be 'in crisis' while the further training system has not yet fully developed into a distinct education sector.

The likelihood of a 'dual system of initial and further vocational training' emerging obviously depends on the political willingness to foster it. At present, however, there appears to be no sufficient support for this particular concept but policy-makers do agree that the permeability of the education and training systems requires improvement which is reflected in a 'catalogue of measures'. These measures include both the development and testing of concepts and models to achieve this aim (cf. BMBW, 1994b).

FRAMEWORK MODELS

Two 'framework' models have recently been developed and put forward for discussion, each of which has been designed to provide interesting vocational pathways for young people while concurrently aiming to meet the needs of a modern economy (3). In 1992, the DIHT introduced a new training and education model, '*Duale Berufsausbildung im Verbund*', with the explicit aim of influencing youth to make the decision to commence training in the dual system (DIHT, 1995:175). The main feature of this model is to provide a pathway for students holding a higher education entrance qualification that consecutively combines apprentice and further training and tertiary level study. Under this model, students are to attain three qualifications over a period of 5.5 years (*i.e.* trade and advanced trade qualifications and a *Fachhochschule* degree) in an

FIGURE 10.1 DIHT'S NEW FRAMEWORK MODEL: 'DUALE BERUFSBILDUNG IM VERBUND'

SOURCE: DIHT, 1996:180

'integrated programme' in which theory and practice are closely and flexibly interwoven at each stage (see figure 10.1 above). Vocational training, however, as presently provided under the dual system remains unchanged.

DIHT (*ibid*, pp.183-4) claims that the benefits of this new model are manifold for all of those involved. Employers, for example, will find that young people may commence in greater numbers apprentice training under this framework structure as it leads to the attainment of multiple practice-oriented qualifications. The obvious advantage this model provides for students is the articulated educational and career pathways which have not been available previously. Some of the advantages DIHT associates with its own model are that the existing vocational training structures can be used. The three certificates that can be attained during the courses of study and training are final qualifications in their own right so that a number of entry and exit points are available in this model, thereby potentially facilitating learner flexibility.

This integrated model, on the other hand, is also a closed system as upon successful programme completion a degree is conferred which, according to the *Handelstag* is going to be recognised in the European Union. DIHT insists that 'the employers' should bear responsibility for the coordination of this 'framework' model, if not overall responsibility (*ibid*, p.182). DIHT is planning to establish a network of its integrated programmes throughout Germany but first requires the approval of the *Fachhochschule* Conference of Rectors before implementation can be initiated (4).

DIHT's model is generally welcomed by IG Metall but they are recommending that apprentices sign a training contract for a period of three and a half years which, upon completion and after passing an intermediate trade examination following 18 months in training, provides

eligibility for participating in a course of further vocational training and, afterwards, studies at a *Fachhochschule*. This latter part, consisting of advanced training and tertiary-level study, requires, in the view of IG Metall, coverage by a training and study contract and in terms of subject content it needs to be aligned to a programme at a *Fachhochschule* (Jentgens, 1995:35).

'*Duale Berufsbildung im Verbund*' is a partnership programme between providers, industry and commerce and employer representative bodies, designed by and under the control of the latter, and sets out to deliver a combination of sequential education and training courses to learners in a compressed format. This model is designed to compete with the normal route to a *Fachhochschule* degree which usually takes about five years of full-time study from the age of 19 for which the *Abitur* or *Fachhochschulreife* are requisite entry qualifications. The inclusion of the *Fachhochschule* in this model is a strategy employed to purposefully shift the emphasis from university studies to more practice-oriented learning at a *Fachhochschule* (BDA, 1993). This new framework makes it possible for an entrant to gain three qualifications in five and a half years of concurrent study and training. The length of apprentice training has been reduced to just two years at a time when a trend towards increasing the duration of initial trade training is discernable. Further vocational training takes an additional year and is recognised as being an integral part of the *Fachhochschule* study which totals three-and-a-half years of combined study and training.

A major point of concern with this proposed framework is that it has been developed to cater almost exclusively for the academically more able students who are presented with interesting study and career options not available to youth in the lower ability ranges. It seems to be a reasonable assumption that the implementation of this model will result in training and education structures which are basically in competition with

each other. Although the educational standards are the same in the two 'systems' and students come out with the same qualifications, the courses will differ substantially in terms of content, delivery and organisation. Whereas the normal route to a skilled worker's certificate and advanced vocational awards is marked by a lack of progressive educational pathways, the DIHT framework model allows those holding the right entry qualification to advance through a permeable education and training system.

Consequently, the DIHT learning model appears to be élitist, especially because there seems to be no provision for those having completed, for example, the *Real-* or *Hauptschule* or either of these in combination with completed apprentice training to enter the DIHT model at any of the available entry points (DIHT, 1995). Lastly, confirmation of this view can be obtained from the fact that under this new model there will be qualification requirements for entering an apprenticeship which runs counter to the federal government's policy (rhetoric) that it is an open entry-based training system.

The second framework model under discussion here has been developed by BiBB in recent years but it needs to be stressed, it has the status of a proposal only. In designing this model, BiBB has specifically taken into consideration the 'measures' the major role players agreed to in 1994 in order to enhance the attractiveness of the dual system of vocational training. Its proposal shows a high degree of resemblance to the DIHT framework although a few but significant differences exist. Underpinning this model is the notion that the status of training ought to be on a par with education. Such parity, in the view of BiBB, can only be achieved if an 'independent' vocational training system can be developed that encompasses further vocational training as one of its chief components (Dybowski *et al.*, 1994:4). A key feature of this model is to put in place a

comprehensive and transparent framework that allows students to progress from upper secondary school to tertiary level studies through a sequence of prescribed training and study programmes at the various educational levels. BiBB's model comprises three qualifications or occupational levels, *viz.* skilled worker, *Meister* or *Fachwirt* and occupational-academic courses leading to a *Fachhochschule* or university degree (5). These latter courses have still to be developed (*ibid*). Another key element of this framework is the application of the duality principle of work and learning to all the levels of training and learning.

BiBB argues, possibly in an attempt to silence critics in the higher education sector, that it should be possible for an individual holding an advanced vocational award, *e.g.* a *Meisterbrief*, to commence studies at tertiary level, as it recommends. The Federal Institute in this respect refers to a number of *Länder*-specific arrangements under which individuals practising their occupations in the workforce but who do not hold an *Abitur* certificate can gain admission to higher education studies after, in the majority of the *Länder*, having passed an entry test (6). Research conducted in the *Land* of Lower Saxony indicates that students studying for a university degree without holding an *Abitur* certificate are at least as successful in both the intermediate and final degree examination as those who passes one (*ibid*, p.7; KMK, 1995b:96-7; *cf.* Leffers, 1995).

However, for vocational training to achieve real parity in terms of status and standing with academic education the decisive factor is when, in the view of BiBB (Dybowski *et al.*, 1994:9), vocational training can successfully compete with academic education on the basis of course content for the same career opportunities. Ultimately, the issue of real parity, will be decided in society generally and in the employment market in particular (*cf.* Tessaring, 1993). BiBB disapproves of a situation arising in which individuals would opt to undertake further vocational training within the context of the framework for the sole purpose of commencing

university studies. With regard to the DIHT framework model BiBB rightfully criticises the fact that *Haupt-/Realschule* leavers and trade qualified people are excluded from participation (*ibid*, p.10).

BiBB's model differs from that of DIHT in a number of important aspects. First, the entry requirement is either a *Hauptschule* or *Realschule* leaving certificate; while BiBB concedes that although formally there is no such thing as a qualification entry requirement for entering an apprenticeship, in practice it is either of the above named certificates that is being demanded (*ibid*, p.11). But more important is BiBB's aim to create with this framework options for all graduates of nationally recognised training courses to pursue further vocational training and career possibilities (Blötz, personal communication, 1995). Therefore, it is important that these options are made clear and well-known amongst young people. Secondly, the framework covers a total of eight years of consecutive study and training. This has been divided into a three year apprenticeship, followed by a two year course of further vocational training and three years of tertiary-level studies, as distinct from a total of five and a half years in the competing model (see figure 10.2 below).

An identical feature of both frameworks is that students can achieve three different recognised final awards, which are also exit points and may lead to career opportunities. The length of the first two programmes in BiBB's model appears to be based on the normal prescribed duration to complete these courses in mainstream vocational training. However, there will be a provision available for those entering the system with higher level entry qualifications to complete the combined courses in less than eight years; further vocational training is not considered as constituting an integral part of tertiary studies in BiBB's conception. Thirdly, the Institute recommends that both the universities and the *Fachhochschulen* participate in its framework (*ibid*, p.11). The main feature of both paradigms is the

alternation of provider-based learning and industrial placement at all stages of education and training.

BiBB (*ibid*, p.12) asserts that a number of measures have to be considered for the successful implementation of this model. First, the Institute deems it desirable that the *Fachhochschulen* and the universities take on functions in further education, an education area they are traditionally not associated with. It believes also that the relatively small range of nationally recognised further training awards should be expanded in order to articulate the alignment of the areas of initial and further training. Therefore, new ordinances need to be designed, especially, as BiBB claims, in the service sector areas, *e.g.* tourism and public health. A further, and important, requirement is that enterprises and providers are scheduled to work in partnership under the framework (*ibid*). BiBB advocates that modularisation in further education is a suitable way to deliver and certify the achievement of additional skills (*Zusatzqualifikationen*) in areas such as foreign languages (see below). BiBB (*ibid*) underlines the importance of ensuring that its framework is transparent and easily understood by its users as the model provides for a multitude of study and career options. Advisors are therefore needed to provide assistance to students and employees in making their decisions.

The Federal Institute is mindful that flexible pathways in the proposed framework should not primarily be used as a way for those not holding the *Abitur* certificate to gain easy access to university studies, which is a concern it shares with, for example, employer representative bodies and the universities (*ibid*; DIHT, 1995:175; Adler *et al.*, 1993:6; Tessaring, 1993). A persistent German problem is implicitly addressed herewith, *i.e.* the alignment between the education and labour market systems. Middle-level positions in the labour market, *e.g.* *Meister* and *Techniker*, are increasingly being filled by university and *Fachhochschule* graduates as well as by trades people holding additional qualifications.

This is compounded, according to Tessaring (1993:153), by the fact that training for these middle-level occupations traditionally has been undervalued and underutilised. The need for the development of 'bridging qualifications' leading to an employment position between that of a skilled worker and an engineer has been identified by BiBB and others (Dybowski *et al.*, 1994:12; cf. Drexel, 1994) (see also chapter 7). BiBB (Dybowski *et al.*, 1994:12) thus recommends that educational and career pathways be developed to cater for this need but which are sector-specific and will be used mainly by small and medium-size enterprises. It is unclear whether this concept will be linked to BiBB's framework model or remain external of it.

BiBB's 'framework' proposal, as outlined above, is in conceptual terms interesting in the sense that it departs quite significantly from mainstream education and training provisions in Germany. Elements of this model, however, such as the transfer options between the different levels of education, have existed for many years but are regulated differently in each *Land*. Eligibility to progress to higher education on the basis of attainment of an advanced vocational qualification, as proposed under the new model, would markedly improve the transparency of national educational provision. If this model were to gain social and political acceptance, its main advantage would undoubtedly be the concept of structurally linking vocational training and studies at senior secondary, post-secondary and tertiary levels. Individuals, who hold either one of the secondary school leaving certificates, would have equal access to learning and career opportunities and could pursue achievement of three different types of qualifications. These occupational awards are expected to be highly valued in the labour market as the courses are not only pedagogically structured around the 'duality' principle but are also delivered and organised in partnership between providers and employers,

by which the relevance of learning to the demands of the world of work is enhanced.

When analysing the conceptual outline of the two frameworks, BiBB's proposal gains preference over the DIHT model, particularly under equity considerations. The Institute's model is clearly designed to cater for all ability ranges - of which the realistic duration of the three vocational programmes is further proof. An integral part of BiBB's model, however, is the promotion of flexibility in learning, teaching and coordination as envisaged under an emerging new learning and teaching paradigm. Within the parameters of a framework, it is expected that learning will take place according to ability, student choice and course aims (*cf. Dybowski et al., 1994*).

While the models proposed are experimental and limited to include vocational courses only, it is relevant, within the context of this thesis, to observe that 'framework' models are being considered in Germany as a possible strategy to modernise education and training in the face of demographic, social, technological and economic changes. Academic and political discussions on this issue are now focussing on ways to systematically connect theory and practice, and working and learning. The extension of the 'duality' principle beyond the traditional domain of apprentice training to all levels of vocational learning is therefore a relatively obvious choice. This is by some regarded as desirable whereas others consider it as almost a foregone conclusion (Klems and Vandeven, 1994:125; BMBW, 1994b; Anderseck, 1994; Pütz, 1995).

It is interesting to observe that these developments appear to signal that vertical 'inner' differentiation in vocational training is becoming a more important policy issue in Germany (Kutscha, 1994:53). At the same time, it can be observed that, in terms of 'outer' differentiation, education and training are slowly, and very tentatively indeed, moving towards each other, albeit without their sectoral boundaries changing significantly

(Schwiedrzik, personal communication, 1995). Despite all these reform attempts, it remains to be seen whether the proposed framework models will be attractive enough for young people to consider at a time of an increasing trend towards '*Gymnasialisierung*' (cf. Kutscha, 1994) and 'credential inflation'.

OCCUPATION OR MODULE: SOME CONSIDERATIONS FOR THE FUTURE

The main feature of the German system of vocational training is undeniably the fact that it is based on the *Beruf* principle. The question that remains to be answered, given the emerging new paradigms and frameworks, which all stress the importance of flexibility, is whether this notion should still have such a central place in both the training scheme and the labour market. In a number of countries, modular learning is being embraced as a flexible approach towards training and qualification. Discussions in Germany tend to focus on whether a modular approach is a possible desirable and acceptable substitute for the *Beruf* concept. Among the opponents of a shift in focus are the federal government and BiBB (Deutscher Bundestag, 1990:101; Lübke, 1994:150).

In the view of the General Secretary of BiBB, Hermann Schmidt (1993:144), the *Beruf* principle is not only 'an occupation pedagogical construct' but also an institution that makes an important contribution towards the social stability of the workforce in the Republic (cf. Greinert, 1990:285). In a similar vein, the Executive Board of the Federal Institute categorically rejected the modular concept in 1992 as a possible means of organising initial vocational training.

While some postulate that the introduction of a modular training system in Germany would result in a loss in occupational orientation (von Bardeleben, interview, 1995) and is one essentially incompatible with Germany's aim of providing broad-based apprentice training (Bartel,

interview, 1995), others claim that the *Beruf* concept will become obsolete as an organising principle for modern vocational training (Lisop, 1989, quoted in Geissler, 1991:73). Dehnbostel (1994:13) argues that countries without a developed training system may benefit more from introducing a modular scheme than those which do have a well-established system. In his judgement, if Germany were to implement a modular system then this may prove to be less expensive than its current system of recognised training occupations which, he claims, will be negatively offset by a 'considerably lower average training standard' (*ibid*). He also believes that a modular approach to training will lead to over-deregulation, and refers to the NVQ's in the United Kingdom as an example (Dehnbostel, interview, 1995).

Overall, there appears to be a high degree of consensus in the Republic that there is no real alternative for the *Beruf* concept, at least not at the moment (*cf.* Kutscha, 1992). Geissler (1991:72), on the other hand, believes that modern industry now demands permanent flexibility from its workers and does not require them to receive more education for the sake of 'making sense out of this world'. Workers, he argues, need to possess, and be able to renew, transferable and expert skills which allow them to adapt swiftly to changing work requirements. It follows, in his view, that this 'skills collage' will 'only, if at all, need the *Beruf* concept as an illusion' (*ibid*). This view has been refuted by some who see that a growing importance of 'key qualifications', on the contrary, will lead to a greater demand for general education (Arnold, 1993:95).

In Germany, modular structures are primarily used in further vocational training; however, an accepted definition of what a module entails is non-existent. It is useful here to refer to the main components of a working definition of the concept of modules as:

...learning units which are put together on a basis subject, pedagogical and didactical needs, and which may be combined in different ways and varied chronologically. They permit flexibility

[and] take into account individual achievement potential (Jordan *et al.*, 1992:4).

Modules are mainly developed in the context of new teaching and learning methods; as has been seen BiBB is one of the main bodies charged with the responsibility in vocational training to test new concepts and methods. According to Jordan *et al.* (1992:6) there is no consistent approach with regard to the development of modules (*ibid*). A BiBB research project is looking precisely at this issue, developing a modular concept for further vocational training for employed people without a formal vocational qualification. It is important to note that the aim is to qualify a participant for a recognised occupation.

There are two types of modules proposed, *i.e.* *Berufs*-modules (learning units for a particular occupation), and 'supplementary modules' (learning units for allied occupations) which are especially designed for mobility purposes. Central to this concept is the notion that the individual modules will be certificated and training will be concluded with the passing of a final trade test. Bock (1993:204-215) has recommended, along similar lines, the introduction of modular training for adults who want to attain a skilled worker certificate.

With regard to the modularisation of initial vocational training, there appears to be a limited level of support for its introduction. To date, the Chambers have rejected considering this modular concept (Kloas, interview, 1995). Some academics claim that modular training should be seen as a way to individualise learning processes and diversify organisational forms and is an approach which could be a desirable response to the demands of the emerging learning and teaching paradigm that is characterised by a perceived need for more flexibility (Kutscha, 1992a:152; Heidegger *et al.*, 1991a and 1991b). Increasing flexibility is not only a requirement with which education and training can and perhaps

should be associated, as it also relates to the spheres of, for example, corporate work organisation and industrial production.

It will be interesting to see how the Germans will proceed developing their education and training systems, considering the many challenges ahead. Neither the introduction of modular or competency-based training and assessment in initial vocational training is deemed at present to be an acceptable policy aim as this would mean deregulating an 'immutable' occupation-focussed system. A 'framework' model, as supported by BiBB and employer bodies, potentially may offer some solace to the many problems which Germany is facing in education and training. Simultaneously, it will be a daunting task for the Germans to agree on a(ny) radical new model and implement it accordingly as theirs is demonstrably a history of safeguarding the *status quo*.

NOTES

1 Blötz (interview, 1995) reported that, at the time of the interview, there were 430 further training occupations. He defined further training pragmatically as all vocational training that comes after an apprenticeship in a nationally recognised training occupation. On the other hand, a total of some 1300 further training regulations exist in Germany (Schmidt, 1993:140).

2 A particular feature of the majority of the nationally recognised further training occupations is that they are being regulated very flexibly. The examination requirements are laid down only, not the teaching of it (cf. Tillmann, 1992).

3 The term 'framework' model is used here to emphasise the comprehensive nature of the proposed models and only at that general level is a comparison appropriate and possible with the New Zealand National Qualifications Framework.

4 At the time of writing, it is understood that an agreement between the *Fachhochschule* Conference of Rectors and the employer representative bodies is still pending, despite a mutually expressed intention in 1993 to sign an agreement of cooperation. The DIHT model has been trialled, in a modified form, in the federal state of Saarland (cf. Jentgens, 1995). No test results are known publicly.

5 In Germany, qualification and occupational levels are normally used synonymously, a view which largely derives from the existence of an occupation-based labour market and training system.

6 Admission arrangements exist in 14 of the German *Länder* which are collectively named 'the third educational path' (Dybowski *et al.*, 1994).

CHAPTER 11 A COMPARATIVE ANALYSIS

THE SOCIAL AND ECONOMIC CONTEXT

The preceding chapters on education and training in New Zealand and the Federal Republic of Germany have shown that considerable differences exist between the two nations in terms of history, structure of educational system, legal-administrative frameworks, aims and challenges. Nonetheless, in both countries strategies are either being considered (in Germany) or are already partially being implemented (in New Zealand) by the central government, in conjunction with the other major role players, so as to deal with the challenges presented to education and training in the 1990s and beyond. Both countries, as demonstrated, have taken a human capital approach to the development of education and training which, it should be stressed, is a statement of generalisation and an issue that will be explored in more detail below.

The two countries also show considerable differences in terms of their national economic strengths and in many other areas. In order to illustrate the incidence of some of the cross-country differences, selective data from the 1992 and 1995 World Competitiveness Reports will serve as generalised reference points for comparison (IMD and The World Economic Forum, 1992; 1995, see also chapter 3). On the basis of eight factors, *i.e.* infrastructure, science and technology, domestic economic strength, management, government, people, finance, and internationalisation, 37 countries were compared by the IMD and The World Economic Forum (WEF) on their 'competitiveness' in the 1992 report, which has been expanded to 48 countries in their 1995 edition (1). In the first report mentioned, Germany reached an overall ranking of number two, behind Japan, whereas New Zealand ranked 15 (*ibid*, pp.52,64). The 1995 IMD/WEF (1995:27) report brought to the fore

interesting changes between the two countries in a number of factors, the most important one being undoubtedly Germany's descent to an overall ranking of number six, while New Zealand's position improved remarkably to eighth (*ibid*, pp.130,226).

In the 1992 report, Germany scored highly on almost all the above factors relative to its competitors. Of particular interest was the fact that the Federal Republic was number two on the 'government' factor (2), after leader New Zealand, a ranking the latter is believed to have gained through its comprehensive public service reforms of late (OECD, 1996). On the subject of domestic economic strength, Germany ranked number two overall in 1992, while New Zealand ranked only 21 (*ibid*). Germany's position in this aspect has worsened to a standing of eighth, while New Zealand's ranking slightly deteriorated to number 22 (IMD/WEF, 1995:27).

The backbone of the German economy is the industry sector which employs just about 7.5 million workers in 52,000 industrial enterprises (Societäts-Verlag, 1994:264). In 1992, the largest industrial employer was Siemens with over 400,000 employees (*ibid*, p.265). This country's post-World War II underlying economic philosophy is the 'social market economy' (Smith, 1994:16; see also chapter 6), a consensus model of government which, to date, has provided stability and prosperity. However, some fundamental changes to this system appears to be inevitable, particularly in the face of fierce international competition, European integration, and the ongoing implementation costs of German unification. In light of these factors, reforms are now deemed desirable in Germany which will likely result in public spending cuts (3) and increasing deregulation of the economy (*The Economist*, 1996b:17). It is also to be expected that labour-management relations will become subjected to reforms (*ibid*, p.19). Overall, and contrasting with IMD/WEF's research findings, it is now evident that the above factors, *inter alia*, have

contributed to a declining competitiveness of the German economy internationally and continue to do so (*cf.* OECD, 1993a).

New Zealand, on the other hand, has witnessed a reverse trend, in that its economic competitiveness has improved markedly in recent years, as noted in the authoritative IMD/WEF report of 1995, to which the 1991 Employment Contracts Act (one factor among others) is considered to be directly attributable (OECD, 1994a:79,109). In its 1993/1994 economic survey of New Zealand, the OECD (*ibid.*, p.111) concluded that this country should keep pursuing policies that set out to enhance the openness and competitiveness of the economy, while pointing out that its skill development needs to keep pace with the changing economy (*ibid.*, p.110). Subsequently, the OECD maintains, the implementation of the education and training reforms should be accelerated (*ibid.*, p.111). In a more recent report, the OECD (1996:61) notes that 'perhaps the highest priority should be given to the need to improve the skills and the competences of the workforce', this being an area where New Zealand lags behind other OECD countries (*ibid.*).

As referred to earlier, Skill New Zealand is the government's policy response which aims at improving the quality and the quantity of New Zealand's human capital capacity. New Zealand's overall ranking of 14 in the 1992 World Competitiveness Report on the 'people' factor (4) is considerably lower than the Federal Republic's third placing (IMD/WEF, 1992:53,65). New Zealand's score on this factor has improved to an overall standing of 12, while Germany's has dropped to number nine (IMD/WEF, 1995:27). In comparison with Germany, New Zealand scored relatively low as far as the 'attitude of the workforce' is concerned, *e.g.* the attitude of young people, competitive values, and worker motivation in the 1992 report (*ibid.*, p.65). Historically, New Zealanders were thought of as having an attitude toward work that has been characterised by some as 'she'll be

right, mate', and 'lacking a sense of urgency' (Ausubel, 1965:35-6). Others claimed that hard work and competition are not particularly sought after values among some groups in New Zealand society and that 'the pressure to mediocrity in New Zealand stands in sharp contrast to the open admiration for excellence which is typical of West European and Japanese schools' (Webster *et al.*, 1992:20). In contrast with these rather negative perspectives about the 'attitude of the New Zealand workforce', the 1995 IMD/WEF (1995:749) survey results on this specific factor indicate a decisive change by showing New Zealand's placing of 11 out of the 48 countries, whereas Germany only ranked 34.

In contrast with Germany, the agricultural (*i.e.* wool, meat, and dairy products) and associated processing industries traditionally played, and continue to play, a predominant part in an export-oriented New Zealand economy (Crocombe *et al.*, 1991). The country's reliance on resource-based commodities, however, is slowly changing as a result of increasing market diversification, including export of services and products manufactured domestically (OECD, 1994a). Although, the short-term trends of the performance of the New Zealand economy is quite impressive both in its own right and from an international perspective (OECD, 1996), some critics have expressed the view that economic growth has unmistakably come at the expense of cut backs to social services, income support and the state sector (Kelsey, 1995:252; Olssen, 1996).

A German equivalent movement or policy framework of the comprehensive New Zealand reform model, comprising economic and public sector adjustment measures which is driven by a New Right ideology, is currently non-existent. And it would be doubtful in a hypothetical sense whether the New Zealand model with all its constituent components could possibly be a desirable exemplar for the Germans, given the existence of the many cross-national differences, like the constitutional

basis of the two countries. Table 11.1 provides key statistics which appears to render a comparison between New Zealand and Germany almost impossible. In the remaining sections of this chapter, however, an effort will be made to establish the appropriateness and usefulness of drawing a comparison of education and training developments in these two countries.

One of the most notable difference between New Zealand and the Federal Republic of Germany is the size of the population. New Zealand's population of some 3.5 million is similar in size to that of Berlin, the German Republic's federal capital, which has around 3.4 million inhabitants on a territory of 889 square kilometers; while Germany's total population amounts to over 81 million. New Zealand has an average of 13 inhabitants per square kilometer, whereas Germany's average is 257 inhabitants for the reference period of 1991 (OECD, 1994a, Appendix). In Germany there are 85 cities with a population of over 100,000 as opposed to five similar sized cities in New Zealand. Another disparity is the geographical situation of the two countries: whereas Germany has borders with nine other countries in continental Europe, New Zealand consists of two large islands and numerous small ones, approximately 1500 kilometers southeast of its nearest neighbour Australia in the South Pacific region.

New Zealand is a self-governing nation and a member of the Commonwealth of Nations and has no written constitution. The nation's executive power is vested in the monarch, Queen Elizabeth II of England, but is exercised by the Governor-General. By contrast, the Basic Law of the Federal Republic is a written constitution and is an all-important document, setting out the functions of the State and establishing the country as a democracy, a federation, and a social welfare state based on the rule of the law (Watson, 1994:203). Crucially, it has been designed to

prevent the centralisation of power from re-occurring, making a return to the days of the Third *Reich* virtually impossible.

The 1993 general election in New Zealand established the voters' preference for a change from a first-past-the-post electoral system to a German-style MMP parliamentary model (Kelsey, 1995:44). In contrast with the New Zealand parliament, which comprises the Crown and House of Representatives, Germany's Federal Republic has a bicameral legislature: the *Bundesrat* (Upper House) and the *Bundestag* (Lower House), of which the former is the joint executive parliamentary body of the *Länder* at federal level. It is less influential than the *Bundestag*, however, in political decision-making but has the important function of representing the interests of the *Länder* (Sontheimer, 1995:289). Essentially, the *Bundestag* can be seen as the equivalent body of the New Zealand House of Representatives (5).

THE EDUCATIONAL CONTEXT

The *Länder*, as previously stated, have sovereignty in all matters except in those where the *Bund* has exclusive rights, such as defence, foreign affairs and finances (*Informationen zur politischen Bildung*, 1992).

Thus under the German Basic Law the entire school system is placed under the supervision of the individual *Länder*. As an exception to this rule, the federal state has by law the responsibility for developing a legislative framework for higher education (*ibid*, p.18), a function it carries out in co-operation with the *Länder* in what is an example of 'co-operative federalism' (Peisert and Framhein, 1990:6). The complexities inherent in the German federal system of government, in terms of legislative responsibilities and organisational structure, and its explicit emphasis on the attainment of 'social consensus', are particular to Germany and not found in New Zealand. But electorally, as a result of New Zealand's recent

TABLE 11.1

SOCIO-ECONOMIC AND EDUCATIONAL INDICATORS IN 1994 (1)
FOR NEW ZEALAND AND GERMANY

Constitution

New Zealand: monarchy with unicameral parliament elected by universal adult suffrage for three year terms which uses a system of mixed member proportional representation (2); Germany: democratic and social federal State with a bicameral legislature elected by universal adult suffrage for four year terms; mixed system of proportional representation and direct voting (3)

Demography	NEW ZEALAND	GERMANY
Total area sq.km. (000s)	268.7	356.9
Population (millions)	3.5	81.4
Employment		
Total labour force (millions)	1.7	39.6
Agr./For./Fish. %	10.4	3.3
Industry %	25.0	37.6
Services %	64.6	59.1
Unemployment (% of tot.lab.force)	8.1	8.4
Unemployed youth as % of pop. (15-24) in 1992	11.2	3.2
GDP (millions) (1995)	59.2	2,420.5
Education		
Total expenditure, % of GDP (4)	6.5 (5)	5.7 (6)
% of pop.(25-64) attained (1992)		
upper secondary ed. (7)	60.0	33.0
non-uni tertiary ed. (8)	10.0	13.0
university education (9)	12.0	11.0
% of upper sec. students enrolled in public & private general & voc.ed./apprenticeships (1992)	81.2 18.8	20.2 79.8

Data compiled from: Europa Publications Ltd, 1995:1291, for data on Germany's constitution; *The OECD Observer*, 1995 (re 5); *The OECD Observer*, 1996 (re 6); OECD, 1995a (re 7-9) for educational data, except 5 and 6).

Key: (1) all data refer to 1994 unless otherwise indicated; (2) in October 1996, the new Zealand parliament was elected under an MMP system

replacing an election system of first-past-the-post; (3) Federal Government, 1994:22; (4) public and private; (5) refers to public expenditure on education for 1991-92; (6) school year 1993-94 and fiscal year 1993, provisional data; (7-9) refers to UNESCO classification of educational programmes, ISCED 3,5 and 6 respectively, see below for a comparative analysis on types of educational providers.

adoption of a parliamentary system based on MMP, the two countries now share this key feature of democratic governance.

In terms of the central government's role in education and training and the overall organisational structure some significant differences prevail between New Zealand and the Federal Republic. One of the notable differences, as stated, is that the *Länder* assume responsibility for school-based education without federal government interference. It would be incorrect to refer to *the* German education system, as 16 different but generally not too dissimilar models operate in the federation. In general terms, the organisation and the institutional and decision-making structures in secondary education, vocational training, and higher education have not been changed substantially in recent years, apart from the introduction of west German-type school structures in the new *Länder* and policy intentions to modify the duration of first degree courses at the universities.

In contrast with Germany, the implementation of radical reforms has affected the whole education and training sector in New Zealand since the early 1990s. It saw the abolition of a centralist Department of Education, which was replaced by a Ministry of Education and a number of central agencies, e.g. NZQA, with extensive legislated functions. As regards the NZQA Board, it was vested with policy-advisory powers to parliament through the Minister of Education. In Germany, a similar

position of power is held by the BiBB Board which is the only statutory advisory body on education and training for the federal government (BiBB, 1992:5). The Institute is directly accountable to the federal government (*ibid*, p.4), not to the Federal Ministry of Education, Science, Research and Technology, to which it makes recommendations relating to vocational training matters and with which it consults. This arrangement, in general terms, can be viewed as being comparable to NZQA's working relationship with the Ministry of Education (see also below).

The history of education and vocational training in New Zealand and Germany, post-World War II, has shown that at various points in time and to varying degrees, there has been some considerable dissatisfaction with the performance of the education system, making the need for reform in each country inevitable. These needs and ensuing policy responses were triggered by a multitude of interrelated factors, such as increasing social and business demands for higher levels of education, demographical trends as well as technological changes. Like New Zealand, where the 1923 Apprentices Act, for example, was not radically changed for more than 65 years, Germany's educational history demonstrates a consensus of tenaciously prolonging the *status quo*, particularly in the first half of this century (Lawson, 1965; see also chapter 6).

It would appear to be Germany's federal system of governance and, apparently, the nation's irrevocable aim of achieving social consensus in all matters public that prohibits the establishment of swift and radical change. The aim to reform education and training, however, has been expressed by all the major role players and specific areas for action have been targeted (6). Nevertheless, it is unclear whether this aim is politically and pragmatically achievable (7). By sharp contrast, New Right proponents in New Zealand have, in the words of Kelsey (1995:28), managed to 'capture the political machine' between the mid-to-late 1980s, ending Muldoon's

approach of economic intervention and replacing it by economic fundamentalism. This economic transformation, as has been seen, severely influenced all social sectors and saw the education and training fields revolutionised in almost every single aspect thinkable. One key player in this field is NZQA which, due to its extensive mandate, can be seen as an 'agency of (educational) change' (NZQA, 1996e, see also chapter 3, section I).

Educational change, as history has shown, was deemed desirable and, at a general level, found the support of many groups in New Zealand. The inevitability of restructuring in education in a sense was infused by the debates surrounding the plethora of awarding bodies, a lack of logical linkages between qualifications, and a general preoccupation with the value of written external examinations. Comprehensive change in education, like in the health and public service sectors, could only be politically legitimated and socially justified by means of a strategy of (over)emphasising the deficiencies of the existent system, while stressing the necessity for radical reform. This transformation in education was and is based on utilitarian principles and couched as such in terms of 'clinical' economic relationships, *e.g.* 'consumers' and 'outputs'.

A similar commodifying trend in education is not (yet) discernible in Germany and perhaps is unlikely to appear because of the inherent significance of social relations in matters relating to education and vocational training. This explicit social aspect in politics, economic policies, and educational aims, *inter alia*, is perhaps the key difference that distinguishes the New Zealand and the German approaches to the development of educational policies. As a result, it is unlikely that German federal government bodies would, and could, be established which have functions similar to ETSA, NZQA, and ERO, for example, in addition to

existing ones, and with the specific aim to radically change the education and training environment.

In light of the country-specific social, economic, and cultural conditions, it would also be unimaginable that Germany would consider introducing labour legislation that is similar in intention, nature and scope to the Employment Contracts Act in New Zealand (cf. Keller, 1994). Despite mounting pressure on the *Mitbestimmung* (or co-determination) system in Germany's social market economy (*The Economist*, 1996b:17), this system continues to be supported by both employers' associations and trade unions (Lübke, 1992). In spite of this position, it is not unthinkable that the industrial relations system will change in the face of continuing European integration and other challenges (Streeck, 1991:343; *The Economist*, 1996b) (8). European integration, on the other hand, is not seen in Germany as a process that has, and will seriously challenge the underpinning principles of the German federal system (Goetz, 1995:93). In addition to this, it is not to be expected that the German federal government will introduce, in the foreseeable future, an economic and government management approach that would be comparable to New Zealand's in terms of aims and scope.

Since 1984, no OECD country apart from New Zealand has attempted so systematically to redefine and limit the role of government and to make public agencies and their operations more effective, more transparent, and more accountable (Evans, 1996:21). Research indicates that New Zealand has led the 23 OECD countries in achieving change in 'available liberalisation' since that time, while Germany is trailing its competitors in this respect (*ibid*) (9). Obviously, the reform-seeking Labour and National administrations which have been in power since 1984, and a political structure of a single-house, two-party system, prior to the October

1996 general elections, where the winning party had absolute power to rule, were factors conducive to the achievement of reform intentions.

The political, economic and social realities in Germany at *Bund, Land* and regional levels, are firmly entrenched and sustained in long-standing political configurations of power and decision-making. As indicated above, a multitude of significant challenges present themselves for resolution to the Germans today. But, in contrast to New Zealand's comprehensive reshaping of its public sector, civil servants in Germany are still appointed to their positions for life. Their remuneration is based on a qualifications-based award system, while performance-related pay is a rare phenomenon (Elmeskov, 1995:46). This explains the importance of the qualification(s) one holds in terms of pay, career paths, and social status. The realisation of a genuine parity of esteem of academic and vocational awards is thus predominantly dependent upon the willingness of employers to value the holders of vocational awards to the same extent as those holding an academic degree in terms of pay levels and career prospects. And according to Howieson (1993:184), this disparity of esteem will not be resolved by innovations in the curriculum, assessment methods or qualifications systems (see below).

When looking at the structure of the compulsory sector of the New Zealand and German education systems (10), some significant differences become apparent. Compulsory schooling in Germany is from the ages of 6 to 18 but in New Zealand it ranges from 6 to 16, although from 1997 the school leaving age will be raised to the 17. Whereas in New Zealand a linear, progressive path of schooling prevails at secondary level, comprising successive forms at senior level, the dominant feature of 'the' German system is its tripartite structure with the different types of secondary school, e.g. the *Realschule*, *Hauptschule*, and *Gymnasium*. But common to both countries is that the highest school leaving certificate

represents 13 years of schooling in total which, upon successful completion, gives access to university-level education.

Secondary education is explicitly divided in Germany in a junior and senior secondary level (*Sekundarstufe I* and *II*) and students not completing their compulsory schooling on a full-time basis are required by law, usually as an integral part of their trade training, to attend a *Berufsschule*. One of the striking differences between the two education systems is that vocational education under the dual system takes place at the upper secondary level, or level ISCED 3 of UNESCO's educational programmes classification (OECD, 1995a:277,367) (11). Contradictorily, off-job instruction in New Zealand's conventional apprenticeship system happens at polytechnics, which are tertiary institutions classified at level ISCED 5 according to UNESCO criteria (*ibid*, p.295) (12).

In New Zealand, the detachment of technical education from the secondary system, as recommended by the 1962 Currie Report, was an intentional move to ensure that technical and vocational programmes were offered at tertiary level, which was deemed congruent with international developments at that time (see chapter 2). In New Zealand's new seamless education system and in accord with the principles of the NQF, the traditional institutional structures are being challenged and modified as a result of free market competition. Competition between educational providers is being promoted under the new model and the barriers which use to delineate levels and sectors of education are removed so as to encourage flexibility of learning and provision. In Germany, on the other hand, the education system features institutional differentiation at the upper secondary level and within types of institutions at that level uncommon to New Zealand. *Berufsfachschulen*, for example, provide vocational education in a specialised field only, such as commerce, tourism, or home economics (Führ, 1989:121).

The *Fachhochschule* is an institution comparable to the New Zealand polytechnic in terms of its provision of higher level vocational education programmes, *i.e.* the offering of degree courses which in New Zealand is a recent trend. Thus comparatively, there is no equivalent, single institutional counterpart in Germany of the polytechnic that is providing the range of trade-related courses, certificate and diploma as well as degree programmes the latter offers. The status of the multifunctional polytechnic in New Zealand's system of education also differs from that of the *Berufsschule*. In Germany, *Berufsschule* education tends to be regarded as rather supplementary to on-the-job training, a position which is likely to be enhanced by the federal government's recent aim for an increase in workplace training to the detriment of *Berufsschule*-based instruction (BMBF, 1996a:4). In brief, workplace providers and the *Berufsschule* are not considered to be equal partners with greater relevance being attributed to workplace training to the overall training aim (*cf.* Wittwer and Pilnei, 1986, and chapter 7), as is the thrust in New Zealand.

At a basic level, the German dual system of vocational training compares in some aspects closely to New Zealand's traditional apprenticeship system, particularly with respect to the combination of institutional theoretical instruction with on-the-job training. In Germany, the legal foundations of the 'dual system', and thereby the role of institution-based instruction, was enacted in 1869 (see chapter 6). In New Zealand, the provision of training - once regarded the sole province of employers - shifted progressively to the technical institutes in the 1950s when the significance of technical education and new types of qualifications became apparent in the face of economic and technological changes.

Three major distinctions can be drawn from a comparison between the traditional apprenticeship systems in Germany and New Zealand.

Firstly, the volume of formal training in recognised occupations in Germany amounts to approximately 1.6 million apprentices in 1994 (BMBF, 1995c:116), or 1.96 percentage of the total population, compared to just under 16,000 industry trainees in New Zealand in the year ending June 1994 (ETSA, 1996c; see chapter 5), or 0.47 percentage of the total New Zealand population. Secondly, the economic sectors are largely covered by apprenticeship training in the German system, as opposed to New Zealand's situation. White collar apprenticeships in the trade of bank clerk, for example, have no counterpart in the traditional New Zealand apprenticeship system. And thirdly, the legal-administrative structures in education and training in the two countries differ substantially.

One important difference is the role of the chambers of commerce (and industry) in Germany and New Zealand. In the former country, they play a crucial role in the dual system since they are not only responsible for running a trade examination system and act as 'quality controllers' of the system (Dusseldorp Skills Forum, 1993:26) but carry out their functions in an independent fashion, and protect the interests of the economic sector they represent (see also chapter 7). In addition, the Chambers have regulatory responsibilities in the areas of retraining and further education (*Fortbildung*), and, moreover, are providers of further vocational training courses (Münch, 1994:70). By comparison, the New Zealand chambers of commerce have no roles similar to these of their German counterparts (Sutcliffe, interview, 1994).

Sutcliffe (*ibid*) explains that New Zealand chambers of commerce have no specific interest other than a general interest in vocational training. In essence, functions assigned to the chambers of commerce in the German dual system are carried out by a number of different bodies in New Zealand. So, at present, NZQA runs examination systems for both trade and advanced vocational awards. Similar to the German Chambers, the

Authority has approval and accreditation functions. But whereas the statutory powers of the Chambers are limited to the trades areas, NZQA's tasks, both generally and in this particular respect are, from a comparative viewpoint, more pervasive and comprehensive and should be understood within the context of radical government-led reform initiatives.

In its very essence, again, NZQA is an agency set up to instil educational change, while the chambers of commerce in Germany are 'co-operative agencies' (OECD, 1993c:12), which play a vital part in the organisation and implementation of vocational training in the Republic. Additionally, whereas NZQA and its forerunner organisations, the NZTCB, AAVA, and the VTC, were concerned with either the running of national examination systems in trade and advanced awards and/or the setting of national standards for those qualifications, the examinations run by the German chambers of commerce are not national but are local and run by a Chamber for the economic sector or particular occupation it is responsible for. But although the Chamber skilled worker's certificates are not national qualifications, they are widely accepted throughout German society and understood by all (*cf.* Raggatt, 1988). In a sense, a Chamber carries out some of the functions an ITO and NZQA fulfil in New Zealand albeit at a local level.

Generally, the German Federal Institute for Vocational Training (BiBB) has legislated functions which appear to be comparable to NZQA's tasks in some respects. Firstly, both agencies are central government bodies with policy-advisory powers and both play an important role in education in their respective countries. Although a number of similarities can be noted in their functions, considerable differences exist in terms of purpose, scope and context of application. Both agencies, for example, carry out research. NZQA's research function, however, is absorbed in its policy and planning functions (Kearns *et al.*, 1993:52), while BiBB is a

vocational training research (and service) institution which has an annually published research programme (BiBB, 1996a:11). The Institute provides high quality research into pedagogical methods and has assigned to it both curriculum development and monitoring functions (Drake, 1988:314; cf. BiBB, 1992).

In contrast with NZQA, an organisation with a total of 217 staff (13) where research functions are part of the job activities but not specified in job descriptions, more than half of BiBB's (1996a:8) 378 staff are employed as researchers in specialised areas of vocational training (cf. BiBB, 1994c) (14). It is relevant to note the role of the many research monographs published by the Federal Institute on issues relating to vocational training policies and practices, and theoretical issues. In comparison, NZQA has produced only a few documents of a similar kind (e.g. "Learning and Assessment") over and above a set of policy papers. However, a special feature of NZQA's documents is normally the inclusion of a glossary of terms, which contrasts with BiBB's practice of not defining key concepts in its publications. It is of some interest to indicate the relatively common practice in New Zealand for government departments/agencies to release to all the major role players and the general public discussion documents in which submissions are invited on reform intentions. Such a public consultation process, in which the general public is asked to present its views, would appear to be uncommon in Germany.

At a general level, the two organisations do appear to be involved in implementation activities which are not too dissimilar. However, while BiBB monitors and lends research assistance to pilot projects in more than 200 companies in initial vocational training with regard to the introduction of new technologies or the testing of new training content in the workplace, *inter alia* (BiBB, 1992:7), NZQA is mainly involved in trialling the NQF in the school area. NZQA, an accredited government training

establishment itself, on the other hand, provides training and consultancy services, and offers workshops in, for example, the training of workplace assessors to meet ITO requirements for registration. In the provision of these services, NZQA competes in the education and training market with other providers, such as the Open Polytechnic of New Zealand.

An important legislative function assigned to both BiBB and NZQA is that each organisation is responsible for overseeing the design, the development and the review of standards-setting. A key difference, however, is that BiBB's mandate is predominantly confined to occupational standards-setting at initial trade level, in particular for the on-the-job training component of apprenticeship training at upper secondary level. BiBB's task, however, extends to being a participant in the process of aligning the training ordinance with the outline curriculum plan for the *Berufsschule* (see table 8.2, p.364).

In sharp contrast, NZQA's powers cover a much larger area of jurisdiction, ranging from senior secondary to tertiary-level education and, crucially, through the implementation of the NQF, attempt to align the various educational sectors and levels more closely than ever before.

EDUCATIONAL AIMS AND CONCEPTS

The intentions of the tertiary education and industry training reforms in New Zealand embody an explicit move to enhance both the quality and the quantity of education and training, to make education more responsive to the needs of the labour market and to improve the correspondence between education and the world of work. Fundamental to the success of its reforms, and the attainment of the explicit economic aim of improving competitiveness, is the realisation of an attitudinal change towards work and education. This can not be achieved overnight but more likely will take decades. It should be noted that the

infrastructures required to support the aims set out by government, *e.g.* the ITO structure, and the qualifications and curriculum frameworks, are still in their developmental phases and subjected to ongoing policy change and presumably will come under increased political scrutiny under an MMP parliamentary system.

A fundamental aim all the major role players in Germany subscribe to with regard to their dual system of vocational training is to attempt to overcome the problems associated with matching supply and demand (den Broeder, 1995:33). This aim, however, is more difficult to realise currently due to a noticeable decrease in training commitment and investment among German employers plus the changing patterns of demands for education. Thus whereas the Skill New Zealand initiative is showing some positive results in terms of new entrants and improved employer commitment towards training (although much more has yet to be done), the Federal Republic is witnessing signs of a reverse process. However, it would be a mistake to overemphasise this element, given the different economic and social contexts of the two countries. A more important point to make is that in Germany and New Zealand vocational training forms a part of the educational system and is closely aligned to, and endeavours to meet, the needs of the economic system. In both countries, employers are assuming considerable responsibility for the effective functioning of the training system by (co-)determining the standards of training required and, importantly, providing on-the-job training in conformity with those standards. In New Zealand, this trend of employer-led training that leads towards nationally standards-based educational credentials is a recent phenomenon. Conversely, Germany enjoys a long history of a pro-active, long-term approach to economic and educational planning with the involvement of all the major role players (Finlay and Niven, 1996:14).

In Germany, the predominant role of on-the-job training over *Berufsschule*-based learning in an apprenticeship scheme is widely accepted and hardly a contested issue in an employer-led vocational training system which is expected to meet the needs of the labour market. But, in addition and as an important point, an instrumentalist approach towards skill training is offset by the long-held idea and practice that the workplace has a central role in the socialisation of its apprentices (Raggatt, 1988:175). Because apprenticed training is placed at the upper secondary level in Germany, the teaching of general education subjects at a *Berufsschule* is a mandatory requirement. However, the notion of socialisation being a part of apprenticeship training or informal workplace training has never had a similar dominance in New Zealand. Moreover, in New Zealand university research into technical and vocational education and training is limited indeed in terms of both the volume of research publications and theorisation. In Germany, on the other hand, there is a well-established research tradition into the links between education and training, occupation, and employment, notably in the university sub-discipline of occupational pedagogics.

At the very heart of the German dual system rests the construct of *Beruf*, which is considered to be the medium for education by some German scholars. However, it is not only an educational concept but also constitutes 'a currency for trading labour for money' (Reuling, 1994:2-3). Moreover, the *Beruf* concept has great importance in the Republic for one's social status, and is a reference point for legal and social entitlements and for matters relating to pay. By contrast, in New Zealand the notion of 'occupation' has a strongly reduced economic, educational and cultural value in society, not in the least because of government's structural reforms, and the enactment of the Employment Contracts Act in particular,

that reinforced a move away from a national awards system based on occupations to company-based agreements (Hood, 1996:180).

Whereas in the German labour market and training system the concept of (training) occupation has clear dominance, in New Zealand there is a preoccupation with qualifications and national examinations. The latter's importance, however, has almost been removed in the post-school area by the drive towards a standards-based system under the NQF, although in the school sector some groups insist that national examinations should remain. On the subject of educational credentials, it is apparent that the numbers and range of different types of qualifications offered by the New Zealand polytechnics, are not being matched by their German counterpart institutions, *i.e.* the *Fachhochschule* and the *Berufsschule*, which have a relatively monoteknical focus and simply award fewer types of qualifications. However, it is the structural complexity of 'the' German educational model, characterised by inter-*Land* differences, a variety of streams at secondary level, and institutional differentiation at both secondary and tertiary level which sets it significantly apart from the New Zealand situation.

Qualifications, of course, are important in Germany for the reasons outlined earlier. As a general statement, in the Federal Republic the view is held that it is better to get a qualification than none at all (OECD, 1993c:17), which is a vantage point that is reflected in the participation and the attainment rates of the 15 to 18 age group (see table 11.1 above). The majority of those in this age group undertake apprenticeship training under the dual system, of which a high percentage, between 85-95% (Reisse, 1996:158), pass the final trade examination and obtain a qualification which is nationally recognised and ensures worker mobility. Although the notion of time-serving in workplace training is inherent in the German approach to VET, and is deemed important from the

perspective that it is a pre-condition for the facilitation of skill transfer and worker mobility (Benner, 1977), it is salient to emphasise that the qualification is based on the success in final vocational examinations (Prais, 1991:88), since apprenticeship training (and *Berufsschule* attendance) under the dual system may be reduced for those who possess higher entry qualifications. These notions will be further explored below.

The New Zealand NQF is a mechanism for credentialling, *i.e.* for the certification of partial (credits) or completed qualifications. The multifunctional German concept of *Beruf*, in effect, diametrically opposes the instrumentalist-derived notion that qualifications, as some maintain in New Zealand (Barker, 1993b:14), are a (public) currency. In essence, qualifications, although important in their own right, seem to be of secondary importance to the notion of *Beruf*, which is a holistic social, cultural and economic construct (*cf.* Benner, 1977:9; Deissinger, 1994b:308). The social meaning of qualifications and related concepts, *e.g.* *Arbeit* (labour) in the Federal Republic of Germany, markedly differs across nation-states and is historically determined (*cf.* Grootings, 1994:5). But whereas time-serving, - or more accurately the 'training for an occupation' - is a concept pivotal to the German dual system of vocational training, in New Zealand the importance of the notion of time-serving in apprenticed training has now been reduced with the introduction of a standards-based qualifications and training regime.

Leaving aside all the other reasons already identified as relevant to New Zealand's decision to reform its education system radically, two crucial factors for doing so were the country's relatively weak vocational training system and a profound dissatisfaction in society at large with the performance of the overall education system (see also chapter 2). Grootings (*ibid*, p.6) notes that countries with weak VET systems (15) tend to adopt a competency-based approach so as to strengthen their national training

systems, while those with strong training systems, *e.g.* Germany, adapt the existing system to 'the emergence of new competences' (*ibid*; *cf.* Alaluf and Stroobants, 1994). The first trend comprises a move towards the specification of particular knowledge and skills and their application to the standards of performance required in the workplace, and is frequently associated with modularisation and the provision of flexible learning (King, 1993:211). In general terms, this trend applies to the New Zealand situation. A parallel, curricular development takes place in countries such as the Federal Republic of Germany where qualifications are progressively being regrouped and reformulated with the specific aim of decreasing specialisms (*ibid*, p.212; *cf.* BiBB, 1993a). Both developments, however, are responses by public authorities to increase the inter-occupational and inter-sectoral mobility of skilled workers (Drake, 1988:314).

But before exploring these parallel trends in further detail, the role of the State in the VET sector needs to be examined. Although at a general level it is not incorrect, it is a case of over-simplification to suggest that Germany has an employment-led VET system (Young, 1995:150) despite the fact that employers and the self-governing Chambers assume key responsibilities in the dual system (Weegman, 1992:52) and the claim made by others that the role of the State is limited to fulfilling a 'notary public's' function (Hilbert and Völzko, 1990:195). The dual system, King (1993:214) proclaims, is very far from being a private sector training system since its success is believed to derive in part from very deliberate government policies, including in the field of educational differentiation as well as in the restriction of full-time vocational schools (Lauterbach, 1994, quoted in King, 1993:214). Greinert (1995:33) typifies the German dual system as a '[federal] State supported market model', *i.e.* a 'Germanic-type of co-operative training model', in which the federal State takes responsibility for the functioning of a regulatory framework (16).

In contrast with the German experience, and pertaining to the education sector in its broadest sense, the function of the State in New Zealand has changed profoundly since the early 1990s. This was largely attributable to a considerable degree of dissatisfaction among both the general public and the politicians in the 1970s and the early 1980s with parts of the education system (*cf.* Barrington, 1991). Importantly, the role of the State was intentionally transformed within the policy context of structural economic reform and public sector restructuring (Fitzsimons and Peters, 1994:246) (see also chapter 2). Through the "Tomorrow's Schools" reforms, the State's intended minimalist approach to education became apparent and saw operational responsibilities devolved from the State to the schools and the communities. In turn, this corresponded with increasing external accountability requirements being placed on the latter two which, as some writers (*e.g.* Codd, 1990b) would argue quite rightfully, is not a minimalist approach. The tertiary education reforms, and related government initiatives and legislation, inaugurated an era in which education became 'commodified' in New Zealand (*cf.* Grace, 1990), replacing the until then prevailing view that education was a form of welfare (Peters *et al.*, 1994:253).

This fundamental policy shift in New Zealand regarding the nature and the purpose of education contrasts markedly with the German experience. The German training model is a product of a broad post-World War II consensus, and termed as 'socially controlled welfare capitalism' by Sengenberger (1984:323) (17). However, the predominance of this model of economic and social development has not been uncontested as the mid-1970s saw tentative but clear moves towards a model of market capitalism (*ibid*, p.328; Clarke *et al.*, 1994:385) which, however, left the social contract largely unscathed (Lampert, 1992). This, however, may change and a new social order may (have to) emerge as a result of a continuation of the

economic downturn in the Republic, which will make the German system of welfare capitalism almost unaffordable and certainly less desirable (cf. Smith, 1994:253, and Clarke *et al.*, 1994:385).

Although both countries are modern democracies, it seems that New Zealand has an advantage in being able to respond to economic challenge faster and in a concerted manner, mainly, it appears, because of its small population size and the two party political system that it has had until recently. The number of related reforms under discussion have undoubtedly instituted a new social order in New Zealand. The role of the State in education, however, seems not too different from the German situation, in that it assumes responsibility for creating a regulatory framework in which radical transformations are being codified. Work towards this end is carried out by the central government agencies. Paradoxically, decentralising policies employed by the State are countered by a number of centralising forces, such as an increased emphasis on accountability measures in education (Lundberg, 1994:13).

Like Germany, it could be argued that New Zealand also has a 'State supported market model' in VET. This is evident when considering the government-instigated Skill New Zealand initiative, which includes, *inter alia*, an ITO structure and an extensive system of quality management under the NQF as well as a wide supportive legislative framework. In essence, New Zealand's recent policy shift to devolve the management of, and the responsibility for, most aspects of the training system to employer-controlled bodies is similar to the practice in the Federal Republic of Germany (The Allen Consulting Group, 1994a:ii). The ITOs, like the Chambers in Germany, have extensive powers in VET. They are assigned a role of great importance in the State's aims to move away from a 'provider capture' environment to one of 'consumer choice', and to achieve increased efficiency in vocational training arrangements.

NEW ZEALAND AND GERMANY: A COMPARISON OF APPROACHES TO VET

In this section the different approaches to VET in the two countries will be analysed, including an examination of NZQA's and BiBB's work in this area. The German approach to the modernisation of its VET system can be characterised as an ongoing process of 'incremental addition of innovations' (Wilson, 1993:270) which is, through the work undertaken by BiBB, research-based and includes the monitoring of the trialling of new training concepts and methods in the workplace. An example of this is the continuous improvement of the training ordinances (Nübler, 1991:12), which is but one instrument of meeting future training needs. NZQA has a general guideline that qualifications and unit standards be registered on the NQF 45 weeks after an advisory group meets for the first time (NZQA, 1995b) but endeavours to get unit standards registered, without compromising their 'fitness for purpose', as quickly as possible (Richardson, 1996:4). As stated previously, the procedural process followed in Germany for developing new, or modernising the existing training ordinances is recognised by all of those involved as being too time-consuming (*BiBB aktuell*, 1995:5) (see table 8.1). As a consequence, the social partners and the federal government have agreed to speed up this process and bring the overall time back to two years in the case of new occupations and one where the existing requirements for training occupations are in need of change (*ibid*).

In both countries, certainly, there is a tendency among policy-makers to make sure that standards in VET are set and revised as soon as possible and as appropriate in order to meet changing economic, demographic, and technological realities. In Germany, standards are occupation-based and derived from a combination of techniques and

methods, *e.g.* task analysis, undertaken by BiBB. From a comparative perspective, it is of some interest to note that a single standard procedure does not exist in Germany for standards-setting, since different occupations and occupational fields require methodologically different approaches (Krischok, personal communication, 1995). This, logically, applies rather similarly to the New Zealand experience where unit standard writers can, and are in practice applying a variety of techniques and methods to derive standards for the various NQF fields.

The contrasts that inhere in standards-setting in the initial trade training area in Germany and New Zealand are based on differing, country-specific economic, vocational training and educational policies. Curricular innovation is Germany's continuing policy aim as opposed to New Zealand's recent approach of standards specification. Notwithstanding its reliance on a prescription-driven approach in VET which, in passing, is the prevalent practice in continental Europe (Finlay and Niven, 1996:8), modernisation attempts in the Republic, as demonstrated in the reforms of the electrical and engineering trade, and other training occupations, have led to what is paradoxically perhaps, an even *less* prescriptive mode. It therefore needs stressing that the ordinances best can be perceived as 'skeleton' prescriptions that leave to the individual enterprises matters of detail and allow them to participate in the VET system on their own terms (Curtain and Hayton, 1995:218; Dusseldorp Skills Forum, 1993:24). It is my belief that because the Germans have such a reputable, quality VET system supported by the strong consensus of all those who are involved, and the general public, there is no apparent need for detailed standards specification occurs in New Zealand or the United Kingdom. It could be argued plausibly that the Germans have internalised their training standards due to the dual system's historic and consensual development (Wolf, 1990:36).

This is a general statement only and does not overlook the fact that Germany's dual system is faced by a number of significant challenges. The important point to make is that 'standards' in Germany, in whatever way you may define them in VET, e.g. 'qualification', 'competence', or 'occupation' (18) (see below), are basically 'agreed standards' by those who are responsible for developing and promulgating them, as in New Zealand. In neither country 'standards', whether these be 'performance standards' or 'occupation-based standards', are unambiguously and completely clear in what they purport to do. In Germany, obviously, there is no need to make claims to this effect although this does not mean that a high degree of agreement on and understanding about these training standards is absent. Quite the contrary; these 'standards', or perhaps more accurately the notion of *Beruf*, are 'legitimated' by German society, in the sense that they are central to the stabilisation of its social system which, according to Vaessen (1980) (see chapter 1), is the first phase of the 'legitimacy process'. But as far as New Zealand is concerned, and in consideration of the intentions and the outcomes of the tertiary education reforms, I contend that this country should be situated in Vaessen's third phase of 'explaining and justifying a newly created legitimacy' (*ibid*) (see chapters 1, 4 and 5).

At the 'VET level' (19), one could argue that, although not entirely uncontested in the two countries, the supporting infrastructures that are currently in place, and the standards-setting procedures and methodologies as followed by NZQA and BiBB are generally conceived as 'fit for purpose' in the respective countries. But whereas in Germany occupation-based standards are widely supported by all the major role players involved and in the main are largely uncontested, in New Zealand the NQF 'standards' have been the subject of some considerable debate and

criticism. It is clear that a number of critical differences exist in the diverging approaches to VET.

In Germany, vocational training standards are minimum requirements stipulated in ordinances which are required to be approved by the social partners before their release in the public domain. This consensual approach is one of the quality control measures inherent in the dual system. Individual enterprises, on the other hand, have the flexibility to impart trade skills and knowledge beyond those specified in the ordinances. Breadth in approved initial trade training is demanded not only in Germany but throughout continental Europe and it serves the purpose of transferability of skills and is thus in the interest of nationwide standards (Prais, 1991:88). Consequently, the overall aim of broadly defined prescriptions is to set realistic as well as attainable training goals, which are, normally and for each occupation, based on BiBB's research into a particular occupational field and take into account the whole work situation that relates to a specific occupation. The knowledge, skills, and attitudes components are drawn mainly from the work-related tasks, and the focus in this process is predominantly placed on work behaviour (see chapter 8, pp.359).

In Germany, the setting of occupational standards and the specification of the curricular details and examination requirements is, as has been seen, a long drawn out but well-vetted process with a strong empirical-pragmatic basis. The key feature of New Zealand's standards-based assessment system, on the other hand, is its emphasis on outcomes. In this model, unit standards are seen as targets for assessment which, arguably, also have a didactical focus in the sense of specifying objectives for teaching. Notwithstanding the fact that 'teaching to the test' has a bad name in educational circles (Heckman *et al.*, 1993:23), since it implies a narrow, reproductive focus (Biggs, 1994:13), the potential strength of the

NQF approach seems to rest in the idea that work, learning and assessment ought to be closely linked, pragmatically and pedagogically, within a system of flexible educational provision and assessment. If it works, this approach undoubtedly will be instrumental in the promotion of a learning and credentialling culture in New Zealand.

Michael Young (1995:158) contends that a shift in focus is required in which qualifying is deemed to be a continuous process rather than a qualification terminating the process of qualifying. This idea of 'perpetual training' (Deleuze, 1992, cited in Fitzsimons and Peters, 1994:245), or lifelong learning, is inherent in the very notion of the New Zealand NQF and is representative of this country's overall policy direction in education and training. The NQF has the potential, being a 'tool for assessment' and credentialling, to give entrants to its system a means of recognition of the skills and knowledge they possess in a flexible way. It should be evident that neither Germany's VET system nor its education system on the whole, encapsulates either a real or a 'purported' degree of flexibility similar to New Zealand's, in terms of horizontal and vertical pathways of learning, and this despite the fact that non-conventional pathways do exist in the German system (see, for example, chapter 6).

Permeability is one of the strongest features in the NQF but, conversely, appears to be one of the weakest in the German dual system, because career opportunities are limited for skilled workers (den Broeder, 1995:33). In this context, it is useful to reiterate Young's (1995:150) view that the German system is a 'credentialist model', *i.e.* it links qualifications to occupations and is based on what he believes 'an increasingly out-of-date division of labour' (*ibid*, p.151). While the primary purpose of the NQF levels lies in the facilitation of transfer and progression (Noble, 1996:82), movement between skill levels depends heavily on qualification in Germany (Drake, 1988:317); and as a consequence, a preoccupation exists

with qualification levels (Prais, 1995:18) (see figure 7.1, p.314). Almost all the workers are expected to enter the employment market as trade-qualified since the vocational qualifications determining their skilled worker status are generally not distinguished by level (Dusseldorp Skills Forum, 1993:25).

Generally speaking, an NQF level 4 National Certificate relates to the New Zealand Trade Certificate level which, in turn, compares to the skilled worker's certificate level in Germany (20). However, vocational qualifications comparable to the New Zealand National Certificates levels 1 to 3 are non-existent in the German dual system (*cf.* Prais, 1989:53) which, arguably, is a moot point since a limited number of two-year commercial training occupations are available. The current German Federal Minister of Education, Rüttgers, though, is promoting the idea of introducing into the 'dual system' new two-year training occupations (BMBF, 1996c:2), a reduction in the initial training term now being considered a desirable aim by the Federal Education Ministry (BMBF, 1996c:2). One definite advantage of the NQF approach over the German VET model is clearly its promise of social mobility as it makes available to entrants educational and career pathways which are logically linked and lead to higher level educational credentials. Whereas, Turner's (1960) notion of 'contested mobility' (see chapter 1) appears to be applicable to the New Zealand NQF and seamless education system, his idea of 'sponsored mobility' bears upon the German tripartite system at secondary education and its VET system.

In advancing the concept of a 'credentialist model' of a learning society, along with other concepts (21), Young (1995:156) claims that the use of an 'educative model' is more appropriate because of its focus on learning relationships and the learning process. In his model, productive life itself is seen as becoming a learning relationship, with the sites of

learning diversified and interconnected, entailing a shift in the location and role of educational specialists (*ibid*). His idea reconceptualises the correspondence between learning and production and emphasises the changing nature and the purpose of education, especially in relation to post-compulsory education. It seems to apply equally to the German dual system of vocational training.

In the foregoing chapters it has been demonstrated that both New Zealand and Germany have, and are examining in VET the introduction of new teaching and learning paradigms. By contrast, whereas in New Zealand the standards-based NQF is a reality and extends beyond the realms of VET, the German experience, to date, appears to be largely confined to political and academic discussions only, although it must be noted that in the workplace new concepts of connective learning and production are being tested (Dehnbostel & Walter-Lezius, 1995; cf. Dehnbostel *et al.*, 1996). Clearly, it is relevant to juxtapose some of the key concepts which are in vogue in the two countries and which form the basis on which the new paradigms seem to rest.

In Germany, one such key concept is the notion of occupational competence (or *berufliche Handlungskompetenz*) which, in its essence and as it relates to training under the dual system, comprises 'an ability to act' and presupposes the learning of that action (see chapter 8, p.370). The overall aim of the didactical emphasis inherent in this approach is to train an apprentice to the point that he or she is versatily trade-qualified and has an ability to independently plan, implement, and control his/her own work (Bunk and Zedler, 1986). Central to this notion is the persisting, though pedagogically sound German conviction that competence can only be achieved through a long learning process, as the relevant behaviour patterns can only slowly be internalised (Bunk, 1994:11). However, the German concept of 'competence' (22), contrasting with the 'standards-

focus' in the New Zealand NQF, emphasises both process learning and the attainment of the learning (and 'occupational') outcomes relevant to a trade. It follows that in this model there is a logic, and a perceived 'pedagogical necessity', to connect occupation-derived standards with a curricular framework in order to arrive at a holistic, pedagogical approach. And it is of a similar significance to the Germans to use integrated 'qualification' concepts, such as *berufliche Handlungskompetenz*, components of which not only focus on the attainment of expert, occupational skills, but also on humane (or self-realisation) and social competence (Ruhland, 1992:294) (see chapter 8).

At a general level and from a comparative perspective, a certain degree of similarity in focus and purpose of some of the underlying concepts which are currently being used in the New Zealand NQF and the German 'dual system' appears to exist, such as the focus on integrated learning and increased learner autonomy (Kutscha, 1994; NZQA, 1996a; NZQA, 1996f). A critical difference rests in the approach taken by these countries to assessment and examinations. In contrast with New Zealand's focus on standards-based assessment (SBA) which is experimental and, simultaneously, 'modernistic', because it follows an emerging global trend in educational assessment (*cf.* Gipps, 1994), Germany's assessment approach and methods in the 'dual system' looks to be incompatible with this new trend and considered by some as outrightly outdated (Clarke *et al.*, 1994:377).

This statement, however, is unfortunate since it is oblivious to some of the more positive aspects of the German experience. One such aspect being the German practice of combining external and internal assessment in its system of triple certification (Reisse, 1994:16; Kreeft, 1991). The *Berufsschule* and the training provider certificates are credentials issued on the basis of the results in continuous internal assessment (23), while the

final trade examination, for which the standards are specified in national training ordinances (Reisse, 1991:3), constitutes a comprehensive, 'competency-based assessment' (Toohey *et al.*, 1995:94) in which norm-referencing (multiple-choice tests and/or short essays) and criterion-based assessment (practical and oral tests) complement each other. The German assessment approach based on prescription standards is thus both comprehensive and complementary. Multiple-choice tests are not only relatively easy and cheap to administer, they also ensure a degree of reliability in the total trade testing arrangements.

As a point of general observation, the relevance of the assessment and examination approach under the dual system to the New Zealand situation may appear to be limited indeed, considering the different assessment policies and practices employed in the two countries. In Germany's assessment paradigm, an overreliance on either criterion-referenced or norm-referenced assessment sensibly is non-existent. On this point, the German experience differs considerably from the SBA model, in that the negative features of norm-referenced assessment have been overstressed in New Zealand in order to promote SBA (*cf.* Croft, 1993:9). It is argued that the NQF should be flexible enough to encompass, where deemed appropriate and desirable by both policy-makers and the teaching professionals, multiple assessment strategies. This concurs with Croft's (1993:10; *cf.* Irwin *et al.*, 1995) view that no single assessment strategy is likely to provide every answer. Since the Framework is seen to provide a vehicle for the bridging of 'divides', such as the academic versus the vocational, it is conceptually illogical for New Zealand to foster a single assessment strategy, *i.e.* the SBA under the NQF, and ignore a possible inclusion of norm-referenced tests.

Notwithstanding this criticism, a potentially strong point of the NQF, in comparison with the German dual system, is that, within practical

limits, assessment is intended to take place when a candidate feels confident to undergo it (NZQA, 1996a) and gain credits towards a NQF qualification, if successful. Evidence for assessment can come from a variety of sources, which includes examinations and tests (*ibid*, p.5), and its collection can be ongoing, making maximum use of naturally occurring and readily available evidence (NZQA, 1996f:20). Thus within NZQA's Framework philosophy, assessment, learning, work, and certification are intended to be integrated, and represent an example of an 'educative model' of a learning society, as envisaged by Young (1995:156). In Germany, a tentative but clear move towards assessment modernisation in VET can be discerned of late, and is manifest in the idea of 'integrated assessment' (see chapter 8, pp.400-1), which is strongly supported by, for example, IG Metall (1994) and BiBB (Reisse, 1993b) and successfully tested in the workplace (Sonnek *et al.*, 1993).

Conceptually, the German integrated assessment approach is, to a certain extent it seems, similar to New Zealand's, in that it promotes the view that assessment should be conducted in all the places of learning, such as inter-company training centres, accredited training providers, and the *Berufsschule* (IG Metall, 1995:24). A major difference, however, lies in the idea that in Germany an 'examination committee' (*ibid*) will observe the performance of a candidate in the workplace, as opposed to the New Zealand NQF practice where an accredited assessor is charged with this function. Secondly, the notion of 'integrated assessment' in Germany is part and parcel of its trade examinations system, and in their newly envisaged but experimental model, a multiple assessment strategy will remain a dominant characteristic, containing criterion- and norm-referenced assessment. The certification of skills and knowledge, unlike the New Zealand experience under the NQF, is formalised after a candidate passes a final examination in Germany. Qualifying in this sense is course-

related, not continuous as in the New Zealand model. Thus, a number of elements inherent in the New Zealand approach are, albeit at a general level, present in some of the VET modernisation concepts that are currently being trialed in the German dual system. And thirdly, a key difference in modernising VET in the two countries is, of course, the approach being taken.

One such key difference is the comprehensive, 'overt' quality management system that prevails in the New Zealand system and is not available to a similar extent in Germany. This, in itself, is obvious because in Germany a need for a 'New Zealand-type' moderation system, *inter alia*, is simply not desirable given the nature of their 'assessment model'. The Germans, as stated previously, seem to have more confidence in, and continue to rely on, systems of occupation-based standards and quality control in VET which have proven to be over time 'fit for purpose'. One example of quality control is the vocational qualification attained on passing the final apprenticeship examination (Raggatt, 1988), which attests to the fact that the skills, knowledge, and attitudes relevant to the trade have been mastered to a (uniform minimum) level understood by all. The non-specific nature of occupational standards, in contrast with the NQF doctrine, serves the purpose, as stated before, of setting minimum standards and not to enforce the accredited places of learning to teach to specified performance standards or learning outcomes.

This principle does not apply to the NQF where the registered standards specify in detail what is required of a candidate, and contradictory to NZQA's belief perhaps, is susceptible to the view that they are of a prescriptive nature (Hall, 1996c:296). The distinct advantage of the NQF, at a systems level, is that it places an emphasis on transparency and its governing principles are, principally, laudable in their intent although subject to criticism about their specific wording (*ibid*,

p.292). In terms of its implementation, questions must be placed as to whether this new approach is indeed an improvement on the traditional VET system. Similarly, it is stated by Kutscha (1990:296) that, on the basis of the first experiences with implementing modernised training ordinances for retailing, and the metal and electrical occupations, the differences in training quality between enterprises seems to have increased. Clearly, it cannot be assumed simply because a new training and qualifications structure has been put in place that as a matter of course qualitative improvements will be a logical outcome. Therefore, independent research needs to be conducted so as to determine whether the quality of education and training has increased under the NQF.

And in this respect, I wish to refer especially to the collection of evidence requirement under the Framework, and note that this approach entails not only a significant shift in focus on the part of both the teaching profession (which includes workplace assessors) and learners from conventional teaching and learning methods, but requires the development of skills in communication, presentation, and planning. The paradigm shift required in teaching and learning is significant, and necessitates close monitoring. The current focus on the notion of 'student-centredness' raises important questions, in that the major responsibility for planning and coherence comes to rest with the learner who, as Young (1995:154) asserts, is often one who is least equipped for such a responsibility. And the teacher has also a significantly wider role to fulfil in this new system, including being more than an instructor, for example, by taking on a role such as a mentor, coach and facilitator. Surely, if this new approach is to become successful, it is paramount that time and sufficient resources are made available for the successful adjustment to the new model. Of some interest in this context is that in Germany, 'action-focus' in VET under the new pedagogical paradigm is being perceived by

some as a strategy for reducing 'teacher dominance' (Ebner, 1992:36), or provider capture.

Conceptual similarities, and differences, are found in New Zealand and Germany in the key notions of core generic skills and 'key qualifications' (*Schlüsselqualifikationen*), which are believed, in both two countries, to enhance labour mobility (see chapters 4 and 8). From a comparative viewpoint, the degree of subject theorisation appears to be far greater in Germany than in New Zealand. Conversely, Reisse (1995:50), a BiBB official, comes to the conclusion, after having examined the core generic skills identified in six Anglo-Saxon countries (24), that policy-makers in these countries have officially endorsed them, which contradicts the experience in the Republic. In his opinion, the Germans are falling behind internationally in this respect and have to catch up with developments in Anglo-Saxon countries (*ibid*). The imparting of 'key qualifications' is considered an important educational policy aim in Germany and related to all educational sectors. They are normally referred to in curricula and ordinances although not reflected in learning objective taxonomies.

In New Zealand, NZQA (1995b:26) stresses that all unit standards should be based on transferable knowledge, skills, and attitudes. And, as mentioned before, the contextualisation of unit standards in the NQF is aided by the inclusion of range statements. A major concern deriving from an appraisal of this model is that, although the range statements specify the context and the conditions relating to a unit standard, and help to clarify the standard, the transfer of learning is largely being assumed rather than demonstrated under the NQF. This has led to the specification of core generic skills, which relate to five domains, and described as an NQF 'field' (NZQA, 1996b:18). As a consequence, these skills are assessable now in the NQF, and Framework credits can be gained when the

requirements are being met. Moreover, a National Certificate in Employment Skills, which is at the present under development, has no equivalence in the German system. A definite advantage of the New Zealand approach, it appears, is the specification of core generic skills in the Units Standards Catalogue published by NZQA, in relatively succinct and clear terms and providing transparency as to what is required. However, some writers - e.g. Hall (1994a:19) - draw attention to the importance of not confusing generic skills with transferable skills.

In contrast with the New Zealand government-instigated, employer-supported (25) mode of radically restructuring its education and training system, the Germans continue to choose the incremental, research-based route of educational change; an approach which is endorsed by the social partners and the federal government, but at the present increasingly disputed by academics and labour market specialists alike (Greinert, 1994; Parmentier *et al.*, 1994). Educational experimentation with pedagogical methods and concepts, such as permeability and second-chance education, are plentiful in the 16 German *Länder* but appear to be lacking coherence and transparency (*cf.* BLK, 1990, and Kutscha, 1994). A good example of this is the *Externenprüfung* (see chapter 9) for attaining skilled worker status in an alternative way which is an option largely unknown by the public (BiBB, 1996b:1). In contrast to Germany, where the federal government assumes a 'supportive' role in a confederative State, in New Zealand the reform-seeking and sustaining Labour and National administrations, as from the mid-1980s, have managed to create an education and training market, applying economic principles to education.

INCOMPARABLE CHALLENGES?

New Zealand and Germany continue to respond to the economic and educational challenges ahead by using different strategies and

concepts, and within substantially differing social and economic environments. These have been analysed in some detail in this and the foregoing chapters. This part of the thesis will look, from a comparative viewpoint, at the 'framework' models which are strategic answers designed to meet these challenges. In New Zealand, to date, the NQF has been implemented in part, while in Germany two framework models have been proposed by BiBB and by DIHT. Some of the key differences in terms of structure and purpose between the New Zealand and the German models will be addressed first.

The German and the New Zealand frameworks (26) diverge quite significantly in a number of fundamental aspects. The New Zealand standards-based framework differs foremostly in its orientation on outputs from the occupation-based models in Germany. The occupational focus that inheres in the dual system of initial vocational training is, as proposed, also the dominant, underpinning principle on which the BiBB and DIHT frameworks are to be based. Deissinger (1994b:321), on the subject of organisational principles, comments that the German idea of 'training occupation', with its constituent didactical-curricular dimension, makes sure that vocational training is standardised and unified, providing broad-based training beyond the immediate interests of individual firms (Kutscha, 1992b:539). Contrasting with this concept is the New Zealand standards-based framework which promotes a 'standardised' approach to education and training, in terms of a centrally-controlled process of outcomes specification while, concurrently, devolving to educational providers the responsibility for didactical and curricular issues.

From an end-user's perspective, the NQF system contains a multitude of possible 'qualifications profiles'; a single grid of partial (registered standards) and complete (registered) qualifications. A key feature of this model is that it is choice-driven and in organisational terms

highly deregulated. Coherency in teaching, learning and assessment, one could argue, is assumed but not demonstrated in the standards-based approach, when considering the experimental nature of it. On the other hand, given sufficient time, confidence in, and results with the NQF are likely to improve. By way of generalisation, the Germans are critical of modular, outcome-focussed vocational education and training, as adopted in the United Kingdom, for not 'standardising' (*i.e.* prescribing) the learning processes (Deissinger, 1994b:321; Dehnbostel, 1994). A related concern they have with this approach is whether it in fact constitutes a 'system' (Deissinger, 1994b:320). However, when analysing the German frameworks (see chapter 10), it is evident that the 'systemic' aspects of these constructs are foremostly related to the coherency factor in learning and teaching.

By this I mean that the learning and teaching processes and outcomes are consistently and deliberately aligned in a course of training or study to ensure overall coherency. It is the focus on vocational *courses* in the framework models, and the dual system, that essentially distinguishes them from the NQF in New Zealand. As it relates to the VET area, courses are modularised in New Zealand's educative model in which each unit standard represents an assessment target and covers a fragment of the overall course. The strength of both the German frameworks, when compared with the current situation in Germany, is that it presents, in theory, a pathway for entrants to achieve three different types of practice-oriented qualifications. The duality principle, a primary feature of the dual system, will be extended, it is proposed, to the other educational sectors covered by these framework concepts, *viz.* further and higher VET. This means that workplace training will be complemented by institution-based learning at each of the named levels, the former being and remaining the

nucleus in the dual system of vocational training (BMBF, 1996d:3; DIHT, 1995; Dybowski *et al.*, 1994) (27).

Thus in both countries, the idea is shared that on-the-job training is the dominant mode of training provision, in order to ensure that a close correspondence between the worlds of education and work exists in the face of accelerating changes in the economic, technological, and demographic realms. To this end, employers are given a leading role among the major role players in matters such as the delivery, the monitoring and the organisation of VET. In light of the problems the dual system is confronted with the federal government 'intervenes' in the 'dual system' by addressing, in liaison with the social partners, the key problem areas. One such important area is the projection that more skilled workers are needed as from 1997, expecting an increase of available training places by 1-2% each year until 2006 (BMBF, 1996d:7-8). The suggested framework models should principally be regarded as a policy response to this problem by enhancing the attractiveness of vocational training to potential entrants.

Although there seems to be a broad consensus in Germany that the 'dual system' should be modernised (BiBB, 1996d:2; BMBF, 1995a:1; see chapter 10), it is unclear as yet, and doubtful, as to whether a framework approach, as recommended by either DIHT or BiBB, may potentially increase both the quality and the relevance of the training practice. The only contributory factor with regard to this aim is an extension of the duality principle. This principle, in my view, misrepresents the complexity of the modern-day training and production environment. On this subject, I share Kutscha's (1992a:149) assertion that only a complex organised system is able to sufficiently prepare for an ever complex growing industrial society (28). In reality, Germany's dual system is a 'plural [training] system' (*ibid.*, p.150), since the different places of learning have flexible arrangements for the delivery of training in partnership. In addition, the

Berufsfachschulen and inter-company training centres are perceived to be alternatives to the dual system (Chapman, 1993:120), respectively 'external' and 'internal' to it.

The challenge ahead for the Germans would appear to be for political agreement on the introduction of a comprehensive and flexible 'plural system' of VET, which is characterised by extensive inner and outer differentiation, and aligns to the ideal of an 'educative model'. Modularisation is, at the political level, ideologically inadmissible in both initial and further trade training, in spite of some academics favouring a modular training system (Geissler, 1993:60; Kutscha, 1992a:152). Modularisation opposes the *Berufs* principle in the dual system and is deemed to have a deregulatory impact on its centrally-organised training model. In the same vein, employers consider its application in the further vocational training sector as undesirable since it is seen as a regulatory measure that interferes with enterprises' flexible planning needs (Geissler, 1993:60). On the basis of the prognosis of further vocational training increasingly gaining importance over entry-level trade training, as forecast in IAB/Prognos studies (29), educational and training reform ought to be a pressing policy issue in Germany, which it is.

However, in sharp contrast to the radical New Zealand policy response, *viz.* the 'Skill New Zealand' strategy, the German framework models appear to be relatively conservative attempts to connect the various educational sectors, providing entrants vertical pathways for progression. The emphasis in vocational training at each occupational level in either of these frameworks is, however, based on the stipulated length of the programme which in the DIHT model is ability-related.

Under this model, a person holding an *Abitur* certificate is able to attain three qualifications, building on each other, over a period of 5.5 years of training (combined with study and work experience). By

comparison, a person can achieve in New Zealand in approximately one-and-a-half years of study a Level 4 National Certificate and a level 5 National Diploma in Small Business Management (NZQA, 1996d:54), and probably gain on the basis of these qualifications some cross-credits towards a bachelor's degree (30). If this were a three year business degree, it is not unimaginable that a candidate would be able to attain three different types of credentials in four years of full-time study. Although this is a hypothesis, it seems to indicate that, in terms of qualifications attainment in the DIHT and New Zealand frameworks, there are likely to be considerable differences in the completion times (31).

The three occupational or qualifications levels in the German framework models are incomparable to the New Zealand NQF levels and appear, at a systemic level, not to be based in theory (the same could be said of the New Zealand system). In further vocational training, the 'occupations' are not consistently assigned to qualifications levels (32), and as stated earlier, differences also exist in the initial trade training system in this respect. The presumed lack of theory in the framework levels in Germany should, certainly, not reflect positively on the New Zealand NQF 'levels' as a need has been identified in this thesis, and by others, for more theorisation *per se*. It is thus apparent that the German frameworks and the NQF, albeit aiming to achieve comparable objectives, are in fact quite different in structure and scope, and founded on differing educational and economical philosophies.

A key educational policy issue in both countries is the parity of esteem between education and training, as phrased in New Zealand, and *Allgemeinbildung* (general education) and *Berufsbildung* (vocational training) in Germany. In New Zealand, the NQF will be the dominant educational structure that covers senior secondary and post-compulsory education and training, including higher education. These sectors are also

covered in the German frameworks. The main difference, however, lies in the fact that the latter are vocationally-oriented models. Conceptually, the proposed German approach is paradoxical in that the DIHT and BiBB frameworks set out to establish an alternative, independent structure that, if approved and implemented, will be in competition with the traditional educational system. From an outsider's view, it seems to be only logical that the division between academic education and vocational training will be perpetuated, not necessarily bridged in these plans. The establishment of a comprehensive, transparent vocational training system, as intended (Dybowski *et al.*, 1994:3), having a proclaimed status parity with the current 'academically-oriented' education system, may prove to be a policy aim (too) difficult for the Germans to achieve.

Firstly, the élitist DIHT model is essentially flawed under equity considerations and thus may well appear to be untenable for political reasons. Secondly, in the case BiBB's framework was to become the desirable training model, encompassing senior secondary, post-compulsory, and higher, vocationally-oriented education and training, this would see the status of the 'dual system' changed markedly. Its current character of a rather heteronomous educational sub-system, segregated from the school system (Kutscha, 1990), could only improve if a framework materialises. But, on the other hand, would an expanded, comprehensive system of vocational training, based on 'duality' principles, not bring about a fictitious autonomy? Importantly, vocational training in partnership (*Verbundausbildung*), as envisaged under both the DIHT and BiBB frameworks, will be difficult to organise and is considered costly by Pütz (1996:6), a BiBB official.

Apart from the political endorsement required for a vocational qualifications framework to work, it is perhaps more important (and difficult) to establish a comprehensive and transparent framework that

covers all the sectors which it is hoped to included. As stated previously, the further vocational training sector is not transparent and is organised primarily on market principles. Yet, on the other hand, the Germans have an apparent need for the development of bridging qualifications at this level (33). Additionally, the higher education sector seems to have some reservations about the framework intentions. Because the German federal government has limited powers to actively intervene in those sectors, in contrast with the recent New Zealand experience, changes must be supported by those affected, *e.g.* employers and the educational and training providers. The realisation of a vocational qualifications framework, albeit identified by representative organisations of the employers (DIHT) and the federal government (BiBB) as a necessary policy measure, may thus take a long time to achieve, if educational history is anything to go by.

Generally speaking, educational policy formation in a confederative state normally tends to have a long incubation time; in this Germany appears to be a prime example, especially in the VET area. However, in the 1995 Vocational Training Report, the Federal Cabinet urged the Federal Ministry of Education, Science, Research and Technology, the social partners, the *Länder*, and the various federal ministries also involved, to act swiftly in 'converting' the 'catalogue of measures' into reality (BMBF, 1995b:15). With regard to increasing permeability in the educational system, a key aim the Federal Cabinet wants to see accomplished is the development of national eligibility criteria for holders of advanced vocational awards, such as *Meister*, *Techniker*, and *Fachwirt*, that allow them to enrol in university-level studies (*ibid*, pp.13,15). The expectation, however, is that this can only be achieved in the longer term (*ibid*, p.13); despite the policy issue of permeability being a pressing one for the federal government.

The New Zealand NQF differs from the German frameworks in a number of ways. Firstly, it is a *national* model, which encapsulates all of education and training from the senior secondary school upwards. Secondly, it is a standards-based qualifications structure, in which vertical and horizontal pathways are provided to 'users' for educational and career progression based on a personal choice principle, and where the agreed standards of performance are publicly available in a commodified education and training system. In terms of its design, the NQF is more comprehensive, and appears to be more flexible and accessible than its counterpart models in Germany, as a result of the modular approach. The number of framework qualifications available in the two countries are the same, amounting to three, the decisive difference being that in the NQF, the registered standards can be assessed against at any time, anywhere, and at any age, and thus is providing a greater number of entry and exit points for learners.

Access to employment-relevant, common credentials is a strategy to minimise existing distinctions between general and vocational education qualifications, as stated by Sweet (1992:14). When relating his assumption to the New Zealand NQF, the adoption of a new nomenclature for qualifications augments this intention. NQF qualifications do not indicate by their names whether they are trade, technical, or other type of educational credentials in the conventional sense, although this often can be inferred. And since the new NQF qualifications are already available, or under development/ planned in those economic sectors where no national awards were available in the past, the traditional distinction in status between education and training will become more and more irrelevant. And as a last point, this is likely to be reinforced by the growing importance of the workplace as a place of learning and the standards-

based assessment model, in which, to put it simplistically, the testing of knowledge is no longer seen as the dominant educational aim, but the demonstration by individuals of 'current competence' is.

A further difference between the countries' frameworks, and the NQF and the German 'traditional' dual system, is NZQA's effort, and indeed one of its most important aims, to improve the quality of education and training in New Zealand. Chapter 4 describes the holistic approach to quality management under the NQF in which various 'quality steps' are interconnected, and individually and collectively contribute to the overall aim of quality enhancement. Standards specification in VET, as a reform strategy, requires by its very nature and focus a system of checks and balances. Assessment and moderation, in New Zealand's standards-based system, are connected to ensure that there is an acceptable degree of consistency in assessment. Accreditation of providers to deliver training is another 'quality check', aimed to protect the interests of the 'consumers'. Thus a common quality control system is important in guaranteeing that assessment is uniform across the wide range of accredited places of learning within the NQF environment and to safeguard consumer rights (Hood, 1996:183).

In Germany, occupation-based vocational standards, and examination requirements and other information, are detailed in the ordinances. These can be regarded as forms of quality control which are explicated in publicly available material. There are a number of other forms of quality control though in the dual system which are more implicit and historically determined (see chapters 6 and 8). One such example is the co-operation between the social partners at the different levels in the training system (Raggatt, 1988). In Germany, quality control in initial VET is a dormant issue, which contrasts notably with the identified need to enhance quality control in further education (BiBB, 1996d). The New

Zealand experience is different in that the issue of quality management in education and training is of considerable salience in an environment in which devolution and accountability are key reform principles. However, the quality management system does not only set out to enhance the NQF's credibility in educational terms but contributes to the aim of political legitimacy as well and, importantly, is critical in gaining the end-user's acceptance. Thus, the NQF has not only been promoted by NZQA as an accessible and flexible model, but as an educationally sound and robust structure as well.

Notwithstanding the pedagogical concerns that have been expressed in this work regarding the 'standards' approach in the NQF, it is my belief that that the NQF still can - and should - succeed given the advantages associated with this new approach compared with New Zealand's traditional qualifications structure. However, it would be wrong to accept both the aims and the implementation of the reforms at face value, mainly because there is just too much at stake for society at large. Research and extensive, constructive debate is thus of prime importance in this respect. On the other hand, all education and training systems - whether existent or proposed - have their inherent weaknesses. The quality of enterprise-training under the German dual system, for example, differs markedly amongst enterprises despite the existence of an elaborate quality control system (den Broeder, 1995:33). Similarly, under the New Zealand NQF, the quality of standards-based assessment and training will undoubtedly show some variations across time and space. This is inevitable and should be acceptable since quality control or management in VET can at best be optimised by means of system approaches, not guaranteed (BiBB, 1996d:3). To this end, the success of educational reform is dependent upon the practitioners and the users of the reform 'product' and measured by their experiences with it.

The humanistic educational ideal of matriculation into higher education continues to prevail in Germany (Schmidt, 1996:8) which, arguably, is not experienced in New Zealand to the same extent despite the demand for higher levels of education in both societies showing a comparable growth (34). A key point here is that the egalitarian ethos in New Zealand, whether real or a myth (Pearson and Thorns, 1983:239; Consedine, 1990:172), is a concept that *appears* not to be applicable to a similar degree to German society which, as an industrial and populated democracy, is characterised by a history of social stratification and social inequality (Dahrendorf, 1968:87; Arbeitsgruppe, 1994). Consequently, the 'pioneer mentality' New Zealanders are believed to possess and the relative ease with which they move house and change jobs are examples of why the NQF could find relatively quick acceptance by those wanting to enter the system since it provides so many entry and exit points and, moreover, credentialling opportunities. To this end, however, potential NQF users could be much better informed by the government of the advantages associated with the new model than has been achieved to date (Heylen Research Centre, 1992; MRL Research Group, 1996; cf. Myers, 1996).

NOTES

1 Country competitiveness is defined by IMD/WEF (1992:12) as 'a country's ability to create and sustain economic value-added in the long term relative to its competitors'.

2 In its report, IMD/WEF (1992:13) describe the 'government' factor as a minimalist State intervention approach towards business activities, although predictable macroeconomic and social conditions need to be provided for; government also is required to be flexible in adapting its economic policies to changing economic environments.

3 Helmut Kohl has proposed public spending cuts totalling DM 70 million for 1997 and a modest liberalisation of the country's restrictive hours (*The Economist*, 1996b:17).

4 The 'people' factor in IMD's research report comprises the following principles: skilled labour force increases a country's competitiveness; attitude of the workforce affects competitiveness of a country; and competitiveness tends to increase the level of expectations for the quality of life (IMD/WEF, 1992:13).

5 Delegates to the *Bundestag* are elected by a mixture of proportional representation and first-past-the-post systems. Each voter has two votes, one for the candidate standing in the local constituency and one for a party. Once the results of the constituency elections are known, the votes are added up to determine what share of the total poll they secured. Each party then is given a corresponding share of the seats in parliament (Watson, 1994:212).

6 See the 'catalogue of measures' in chapter 7.

7 At the time of writing (September 1996), it is unknown to me what the exact status of the reform intentions in the areas of education and training in Germany is.

8 Streeck (1991:344), makes the point that it appears to be easier to extend an enterprise-level bargaining system, as prevails in many European countries, beyond the national boundaries within the Union, than to expand a German type industry-wide or regional-level bargaining model.

9 This information was obtained by Evans (1996:21), a reporter with *The Dominion*, from an interview with and a paper written by a former OECD economist for the Business Roundtable. The rate of change in economic liberalisation was calculated by subtracting a single digit rating of 'initial economic freedom' from a maximum 'liberalisation' rate of 10 and then take the percentage of the difference with the 1995 rating. In terms of percentage of change, New Zealand surpassed all other OECD countries by at least 20 percentage points or more; the difference between New Zealand (66) and Germany (12) being 54 percentage points.

10 Reference is made here to a general outline of 'the' German system (see chapter 6) and the New Zealand system, not the NQF or the notion of a seamless education system.

11 ISCED stands for International Standard Classification for Education.

12 ISCED 5 is defined by UNESCO as 'education at the tertiary level, first stage, of the type that leads to an award not equivalent to a first university degree' (OECD, 1995a:367).

13 As at 3 September 1996, NZQA had 133 permanent staff and 84 staff on fixed term employment. This information was obtained from the employment relations and service section of NZQA on 20 September 1996.

14 This is an estimation based on a 1994 corporate staff list and indicated to me during fieldwork in 1995 by BiBB personnel.

15 Portugal and Spain are countries with weak VET systems which are now adopting an outcomes-based model (Grootings, 1994:6), but also includes countries like the United Kingdom (Young, 1995:150) and New Zealand (see chapter 2).

16 Switzerland, Austria, and Denmark are countries which follow the German model.

17 'Socially controlled welfare capitalism', according to Sengenberger (1984:323) is a post World-War II German model of economic and social development which prevailed until the mid-1970s, and fostered the view that economic development must proceed in a 'socially acceptable fashion'.

18 See chapter 8.

19 For the sake of not being misunderstood here, I wish to stress that the 'VET level' refers here to the dual system of initial vocational training in Germany and levels one to four of the New Zealand NQF.

20 This opinion is based on my experience as an evaluator of overseas qualifications with NZQA.

21 Young (1995:147) categorises four models of a learning society, *i.e.* the schooling model, the credentialist model, the access model, and the educative model.

22 The Anglo-Saxon term of 'competence' is a concept which is considered here to be generally comparable to the German notion of '*Kompetenz*'; see also figure 8.1 in chapter 8.

23 Wolf (1991b:554) appears to contest this point since she states that continuous assessment is not a characteristic of both institution-based instruction and on-the-job training. However, in the general secondary school area in the German *Länder*, there is a preference for and practice of internal assessment. Little interest is shown in central performance assessment methods (OECD, 1995b:18). Ergo, it is believed that the individual school is in the best position to decide which educational goals, courses and methods are to be selected and put in practice (*ibid*, p.16).

24 It is likely that New Zealand is included in the number of Anglo-Saxon countries Reisse is referring to, given the fact that he requested the author NZQA information on core generic skills.

25 By and large it would seem to be a reasonable accurate statement to say that the reform movement in education had the support of the employers' representative bodies (see chapter 2); the assumption, however, that it was employer-led has proven to be a myth.

26 For the sake of clarity, when referring in this section to the New Zealand framework, reference is made to the NQF, not the curriculum framework.

27 During the course of this writing, I have tried in vain to obtain from some of my German contacts information with regard to the latest developments on the proposed framework models.

28 See chapter 9, p.448.

29 See chapter 9, p.452.

30 The NC in Small Business Management has a credit rating of 60 or six months of full-time average learning time; the ND has a credit total of 140 of which 25 credits are both a compulsory component to the Certificate and the Diploma;

31 The highly hypothetical nature of this comparison does not reduce the importance of the issue raised here, which is that under the NQF, consecutive level NQF qualifications can be attained, in theory, faster than in the German DIHT model and much faster than in BiBB proposed framework, in which it takes eight years to attain a trade, an advanced vocational, and a degree certificate. It is realised, in stating this, that the structure of the New Zealand and the German 'framework' qualifications, either existing or proposed, are different.

32 See chapter 10.

33 See chapter 7, p.322.

34 Although anecdotal, and based on personal observations, the humanistic educational ideal appears to be very strongly anchored in continental European countries which is, for example, reflected in Germany in its tripartite schooling system.

CHAPTER 12 CONCLUSIONS AND RECOMMENDATIONS

In this thesis, the newly adopted outcomes approach to education and training in New Zealand has been the subject of a critical appraisal with regard to its appropriateness, direction, and expected outcomes in light of the design and the implementation policies governing it. The focus in this work has been on the post-1984 tertiary education reforms with a particular emphasis on the VET aspects of education.

These recent educational policy developments in New Zealand have been analysed from a comparative perspective for which the education system of the Federal Republic of Germany has served as an exemplar. The central issue that remains to be addressed is: What possibly, if anything, could New Zealand learn from the German experiences in education and training reform and/or *vice versa*? Is implementing a standards-based NQF approach and the institution of a commodified, seamless education system a form of 'educational utopia' or would it be more appropriate to apply this label to Germany's adherence to its dual system of vocational training, and its tripartite secondary schooling system?

First of all, and by way of preliminary conclusion, it appears to be almost an irrefutable fact given that it is nearly impossible for one country to adopt an 'educational system' from another nation successfully, despite this being aspired to and tried in (educational) history by the various countries. And even the borrowing of 'elements' of foreign systems of education for domestic adaptation is widely understood to be fraught with difficulties (McLean, 1992). The transference of educational 'elements' and practices across countries is impeded not only by cultural reasons (Gray, 1993:252) but also sound economic justification is missing, Chapman (1993:123) notes in respect of the VET system. Chapters five to ten have demonstrated the idiosyncracies which are inherent in the Federal Republic's 'dual system' of vocational training and the complexities of

policy formulation in education and training in a federal state. Subsequently, *inter alia* (see below), a broad conclusion that can be reached now is that the German VET system, as it exists now, cannot possibly be transferred to other countries (Arnold, 1993:100), chiefly because of the uniqueness of the type of skilled worker in Germany (Keller, 1994:261).

The German training model, because of its examination-orientation and its relatively non-specific skill standards in vocational training, among other factors, has never been an exemplar for New Zealand to consider in its intention to modernise its qualifications and education/training system. Thus, for New Zealand to follow the German model would have meant, it is my contention, a regressive development. This is a perception based on a number of beliefs. The NQF would never have been designed (and accepted politically) in New Zealand if it were to be based on an educational structure and philosophy similar to those currently prevailing, or as proposed in 'framework' terms, in Germany. These structures, either in existence or proposed, possess from a comparative viewpoint a degree of 'inflexibility' which, basically, is incongruent with the key principles which underpin the NQF. One such fundamental aspect in the new New Zealand model is the emphasis on recognition of competence already achieved, which relates directly to the registered NQF standards, rather than reduced apprenticeship periods on the basis of higher level entry qualifications, as is the case in the Federal Republic of Germany.

As a second point, the NQF seems to have a potential advantage over the proposed German framework models, and the 'dual system' of vocational training too, in that it aims to set out a single, comprehensive qualifications system in which the various educational sectors are connected in such a way that progression of learning is facilitated and promoted, while worker mobility is believed to be enhanced by this approach. Although these benefits are theoretically also attributable to each of the proposed German frameworks, the New Zealand standards

approach attempts to provide a degree of inner and outer differentiation (see chapter 8, pp.433) which appears to go further than the German models. This new, over-arching model has therefore, in this respect, a distinct advantage over the two German frameworks, and holds the promise of bringing education and training closer together in terms of parity of esteem. Also importantly, it may bring about an increased correspondence between the worlds of work and learning that genuinely is reflective of what is a desirable aim of continuous qualifying under an 'educative' model, as envisaged by Michael Young.

On the other hand, it should be emphasised that radical educational reform (and reform in other public policy areas) could only have been considered - designed and implemented - within a social and political context sufficiently conducive to such far-reaching changes. New Zealand's small population size, and the former two-party political system it had until recently, have been significant contributory factors in the achieved outcomes of the reforms to date. An important point to make here is that the comprehensiveness of the reforms in New Zealand, in education and training, as in other areas, would have been difficult to emulate in countries which are more populous than New Zealand, such as Germany, should this be desired. Although the New Zealand comprehensive and radical approach to education and training reform may be in some respects a 'world first', it should not be taken to mean that the new approach will be a better one in educational terms, and such a view should be rejected as an oversimplistic view.

The recently embraced outcomes approach in New Zealand, of course, has to prove itself in practice as to whether it will produce indeed those economic, social, and pedagogical benefits attributed to it, as proclaimed by the central government and NZQA as a definite and necessary improvement on previously existing practices. It is a strategic policy response, interwoven with a number of legislative changes in the

industrial relations area and the public sector, *inter alia*, which are to meet the future challenges ahead of New Zealand, economically and therefore educationally. The very institution of a standards approach has been, and still is, a subject of concern and criticism by the universities (*cf.* Hall, 1996c) but also, in a recent change of position (September 1996), by the PPTA which now believes that unit standards will be an inadequate measure of academic achievement, particularly for the conventional school subjects (Williams, 1996).

Thus, in terms of its structure and the key principles, promoting the aims of comprehensiveness, accessibility, and flexibility in education and training, the Framework is an interesting, and indeed a commendable concept; and there is no justifiable reason, in my opinion, to abandon it in New Zealand since the potential benefits of a standards-based education are manifold. However, the pedagogical concerns, which have been expressed rather assiduously by some academics, the teaching profession and other groups, have yet to be resolved. And crucially, at the interface of NQF implementation, issues relating to workload and cost, particularly in respect of moderation also remain unsettled (*cf.* NZQA, 1996h). It is obvious that the implementation of the NQF has been far from smooth. What is required, on the part of the government, is primarily a long(er)-term commitment to an adequate funding and resourcing of the implementation of the 'Skill New Zealand project'. A key aspect for the success of the Framework in the secondary school is the availability of professional development for teachers which is necessary to give them the skills and knowledge required so as to manage, and endorse, the new teaching and learning approach. Hence, the 'socialisation' of the teachers (*cf.* PPTA News, 1996:3), and assessors, is an essential condition for the successful implementation of the NQF.

Paradoxically perhaps, I hold the view that if teachers continue to obstruct the implementation of the Framework in the secondary school for

pedagogical or ideological reasons, or for reasons relating to industrial relations issues, that the government, and on its behalf NZQA, should consider proceeding with NQF implementation without the secondary school sector. This bold and, likely, undesirable move, given the importance attached by the government to the institution of a comprehensive, harmonised Framework, should be considered in view of *increasing* the credibility of the NQF initiative. If the NQF proves to be successful in the post-school sector in time and gains in maturity, the secondary sector may wish to become associated with the NQF for pedagogical reasons.

Generally, it seems that the NQF is functioning quite well in the post-school vocational area. Resistance to the adoption of the unit standard approach in the secondary sector (as indicated by the PPTA in September 1996) and the universities (recognised as a valid concern by the Tertiary Lead Group), brings home the message that the unit standard approach appears to be more appropriate for post-school non-degree education and training than university education and conventional school subjects. And, on the other hand, it is far from clear what the NQF eventually may look like, since significant policy changes are a distinct possibility under New Zealand's first coalition government. The inclusion of provider qualifications onto the Framework was a major change in educational policy direction. What should be avoided is that the key principles which underpin the NQF (*e.g.* accessibility, flexibility, comprehensiveness) become negotiable in the new political environment, although it would be desirable for all parties to debate their interpretation to ensure that a widespread understanding is maintained. Interestingly, this is a view held by a critic of the unit standards model (Hall, 1996c:290-293). It is in terms of these principles that the conceptual strength of the NQF lies.

The NQF, one could plausibly contend, is primarily an economic tool, like the dual system of vocational training in Germany, albeit with the difference that in the latter country it is also perceived and treated as a 'social tool', since training and the attainment of skilled worker status fulfil essential social functions in society. In New Zealand, the relationship between the Framework as an economic tool and the government's social policies is largely assumed at the present time. The NQF, as a credentialling mechanism, could perhaps aid those in unemployment (and other disadvantaged groups) to have their skills and knowledge assessed against NQF standards, the result of which may facilitate their re-entry into the workforce. In this way, people could be given an opportunity to regain confidence lost while tax payers' money for social welfare could be spent on a 'skills audit' and/or NQF related assessment and career guidance costs for those on a benefit instead of maintaining a negative spiral of state dependency. This idea could be investigated, since a proportion of the unemployed may benefit from it.

The NQF therefore needs to be promoted more effectively by the government since a considerable proportion of the New Zealand population, as surveys have shown, is still unaware of the NQF's existence (see chapter five). The community, in my thinking, is entitled to be better informed than it is to date about the NQF and the potential advantages it may have to them. This information could be considered being a form of necessary 'cultural capital', which basically allows people to make informed decisions in a choice-driven education and training market; and which by virtue of its very nature is partial, not neutral (*cf.* Ball, 1993). Economic and social policies, as they relate to qualifications reform, need to be clearly articulated and aligned by the government, which logically follows from the above line of reasoning.

Thus the potential benefits of the NQF model should not only be seen in economic terms, in that it may be used as a human resource

development tool for individual companies, or as a mechanism to upskill the workforce. Its advantages are equally important in social terms, for disadvantaged groups and individuals in society alike. A particularly commendable aspect of the NQF is its emphasis on achieving an increased transparency in educational provision and standards, though one could argue that New Zealand possesses a unit standards system to date, not a national qualifications model. The NQF has the potential to provide clear pathways for educational progress as well as career opportunities. And it is in this respect that it has clear benefits over the traditional New Zealand qualifications system, as well as the German 'dual system' and the proposed DIHT and BiBB framework models, in a comparative perspective. Regardless of the criticisms and concerns expressed in this work on the issue of applying the NZQA's unit standard approach, and format, to non-vocational education and training, it is my fundamental conviction that the concept of a national qualifications framework should be retained in New Zealand.

The concerns, however, remain. And it needs emphasising that although the newly adopted outcomes-focus is generally considered as being appropriate and desirable in the post-school VET area (see chapters four and five), this seems to be less suitable for application in the senior secondary and university sectors (Williams, 1996; Hall, 1996c). Moreover, the theoretical basis of the outcomes approach adopted in New Zealand requires more and systematic research which needs to be carried out by research organisations that are impartial and independent, such as the universities; and complementary to research, review, and implementation monitoring activities undertaken or commissioned by government bodies, such as the Ministry of Education and NZQA. The New Zealand universities, generally speaking, also should undertake more research into the field of 'society, education/training and work'. It is particularly in this respect, that New Zealand could (and perhaps should) learn more from a

(strong) German research focus into the named research field by universities and by some of the German federal government agencies, *e.g.* BiBB. In New Zealand, research is especially needed into the implementation of the NQF and the Skill New Zealand strategy in general. And also, crucially, into the structure of the NQF and the 'pedagogical soundness and appropriateness' of the standards-based approach.

Therefore, it is recommended that the infrastructures - *e.g.* the NQF and Skill New Zealand - the government has put in place with the aim to improve both the 'quality' and the 'quantity' (increased participation and attainment rates) in education and training, be overhauled. A review of the NQF is considered essential by the author, not only for pedagogical reasons, as demonstrated in this research but, secondly, for reasons relating to (political) legitimisation as well. Public policy in education and training has been, and continues to be contested by the teaching profession and academics, which must be seen as a reflection of their concerns regarding the radical and experimental nature of the education reforms and the difficulties with implementing them. This needs to be addressed. Also, the relative lack of public awareness as regards to what the NQF and the new teaching and learning approach set out to achieve, requires a more effective strategy. Consequently, it seems reasonable to assume that more 'research' and 'publicity' (*sic*) are (necessary) steps which may increase the political legitimacy surrounding the educational reforms, and improve public knowledge about the changes as well as foster professional acceptance.

One lesson New Zealand could learn from Germany is not to put in place an overly imbalanced power structure in the training system. By this, I refer to the dominance in status and power of the employers over the *Berufsschulen*, which specifically comes to the fore in the practice of excluding vocational school teachers from participation in the standards-setting and policy-making processes. In New Zealand, polytechnic tutors

are concerned that the ITOs have too much power to dictate how off-job training will be carried out (Rivers, 1996:1), which is a situation broadly similar to Germany's. In both industry-led training models there is an inequality in power between 'industry' and institutional training providers, which is a phenomenon historically determined in Germany but one which was recently 'instituted' in New Zealand. In this light, and in view of education policy formulation in an MMP political environment, the opportunity may yet not have been lost for the decision-makers to consider a structure in which providers have an input in matters as important as standards-setting and policy-making.

'Industry-capture' of control over content and policy direction in vocational training could be as undesirable as 'provider capture', the latter having been earmarked in the education and training reforms as a barrier to achieving a more responsive education system. In the German dual system, 'industry-capture' would be a wrong term to use, although it is an industry-led training system. The key role players, the umbrella employers' associations and trade unions, co-jointly determine vocational training policy. This 'social' aspect, which is a prominent feature of the German social market economy, has ceased to exist in New Zealand as a direct result of legislative changes which have curtailed the powers of the trade unions. The tertiary education, industry training and other reforms (as referred to in this work), have created a new social order in which the State now assumes a minimalist though central role. In this order, deregulation is a defining characteristic which is complemented by elaborate structures of accountability.

The key differential setting the New Zealand and German situation apart, is the macro-economic policy direction of the central government. In New Zealand, social policies are being subordinated to the government's aim of achieving its economic targets. Market liberalism is now being applied to all sectors of society including the public sector. Change, it

appears, is now the only constant factor in a search for increased efficiency and economic competitiveness. In this scenario, government agencies too, such as NZQA, are likely to see their legislated functions reduced or cease to exist altogether as an (independent) organisation. This, I believe, contrasts significantly with the German experience, in that the Republic's federal government has to continue to honour its social obligations, as enshrined in the Basic Law. And there is also no indication that the institutional status of BiBB will change markedly in the near future. Continuity, in this respect, is therefore to be expected.

Putting aside the many cross-national differences, what do New Zealand and Germany have in common in the development of education and training? Basically, this can be summarised in five main points. Firstly, the realisation of an increased importance of the workplace as a place of learning, a notion which is demonstrated in the principles which underpin both the New Zealand and German framework models. Secondly, the role of the central government is limited to ensure that appropriate infrastructures are in place to support the development and maintenance of an industry-led training system. Thirdly, in both countries (advanced) vocational training, and the design of qualifications, is expanded into the service sector. Fourthly, New Zealand and Germany are implementing and considering, respectively, a framework approach, though they show significant differences in terms of design, structure and also, partially, in purpose. And lastly, the issue of parity of esteem between training and education as well as the alignment of educational sectors are key policy aims in both countries, an issue which requires some further deliberation.

The notion of parity of esteem of academic and vocational learning and qualifications is an issue central to current education and training policy debates in Germany and New Zealand, and indeed world-wide,

and is linked directly to these countries' aim to enhance the responsiveness of the education and training systems to the needs of their economies. Consequently, in New Zealand, education is now seen to be and is promoted by the government as constituting 'a single process' (for example "Learning for Life: Two") whilst education and training are perceived by NZQA as a continuum. The division between the 'academic/vocational' is opposed by many people in New Zealand as representing an artificial boundary between, what are in fact, different vehicles for learning. The status hierarchy between the two categories appears to be more pronounced in Germany where there is a clear status distinction between *Bildung* and *Berufsausbildung* and only relatively few points of contact between the two. It would be a mistake, though, to presume that vocational qualifications are associated with low attaining students in the Republic. To the contrary, the fact that a significant percentage of *Abitur* holders aim to attain a skilled worker's certificate is an important indicator of the value of recognised trade training in Germany.

But is there any validity, conceptually and in 'real life', in an 'academic/vocational' duality? And to what extent would blending be desirable? Clearly, the nature and purpose of the different types of learning, for example plumbing and accountancy, can be seen as being quite dissimilar from each other. But despite the obvious curricular, and other, differences there are points of convergence as well; the main one being that they are both valid forms of learning. Thus each of these courses of learning serves a definite and valuable purpose. The need for continued adherence to this division appears to become increasingly unnecessary in modern, post-Fordist societies, although any measure designed to change this may prove to be more difficult to implement than perhaps thought imaginable. Evidence of this is the considerable resistance in the secondary and university sectors in New Zealand to the

instrumentalist approach to education and training which is currently being advocated by the central government.

In New Zealand, as in Germany, increased parity of esteem between academic education and vocational training is believed achievable by the major role players in VET by means of the development and implementation of a flexible framework for learning and qualifications. Such a unified system has undoubtedly the potential to erode the status distinction between the academic and the vocational since transfer and progression of learning are, at least theoretically, facilitated within the overall spectrum of education and training. Another important point that is likely to help influence the bridging of this division positively is the adoption of a new, common nomenclature for national qualifications under the NQF. As a result, for example, the distinction between (conventional) trade and technician qualifications on the basis of the names of the types of awards will become irrelevant. What *will* be important, is what type of NQF qualification (*e.g.* National Certificate) they are, their level, credit total, standard specification and, importantly, the horizontal and vertical learning pathways available to students.

Whereas in New Zealand the focus is on registered standards, the emphasis in Germany is on the complementary aspect of institution-based instructional courses and on-the-job training and experience at all the levels of post-compulsory vocational education and training. The aim to provide for differentiation among students by way of modularisation and flexible course delivery is arguably a laudable approach. However, pedagogically speaking, this paradigm shift in learning and teaching should not be supported by the proclamation of the benefits of, and adherence to, just a single methodology, such as the unit standard approach. The Germans, as indicated in this thesis, refrain from applying a single, prescriptive approach to vocational instruction for pragmatical and pedagogical reasons.

So, whereas the Republic looks to the possibility of setting up a 'vocational' framework, New Zealand's NQF is more comprehensive and ambitious in its design to cover all of education and training beyond compulsory schooling. To date the latter appears to be successful in the vocational area but has generated strong opposition in other educational sectors. An important point of similarity between the German and the New Zealand frameworks is that the linking of the educational sectors is considered by their respective governments to be an important policy aim. If well designed, this could make a significant contribution to a genuine bridging of the academic and the vocational spheres of learning in terms of status; while, at the same time, it could possibly bring about a closer correspondence between education and training and the world of work in the not too distant future.

When applying Richard Rose's 'method' of 'prospective evaluation' (see chapter 1), which element(s) of the German experience, if any, could contribute positively, in time, to enhance the outcomes of the tertiary education and industry training reforms in New Zealand? A number of elements, all relating to vocational training, could be considered for cross-national, cross-time application: research, multiple assessment strategies, and attitudinal factors. Given the 'revolution' in education and training, it is evident that quality research into the NQF and industry training regime is important and should be ongoing. Funding for this should be made available by central government for this to happen by (some of) its agencies. University departments, on the other hand, should consider increasing their conduct of empirical research into these areas and encourage students to undertake thesis research as well.

Multiple assessment strategies, as practised in Germany in vocational training, could be a desirable option for New Zealand policy-makers to consider *in time*, considering the implementation problems and

costs associated with a 'pure' standards-based system. And lastly, although the notion of training being an investment is waning in Germany in times of economic downturn, a positive attitude and commitment towards the economic (and social) importance of vocational training is something New Zealand could learn from in its attempt to create a learning culture in this country. This cultural facet is not transferable but nonetheless may serve as an 'observational' example. In sum, the majority of the education and training concepts inherent in the unique German approach to VET are not relevant to the New Zealand situation, and consequently not beneficial to the standards approach. The end conclusion to be drawn is that the German approach to education and training has but little relevance to the New Zealand setting.

Contrarily, I believe that Germany could learn from the education and training reforms in New Zealand, although this surely will be limited to a conceptual level only. And even at this level, some Germans (especially BiBB staff) are, as voiced in interviews and professional journals, critical of a standards or competency approach in VET. Modularisation of initial vocational training is more or less a 'taboo' topic in Germany and has currently no political support. However, in my opinion, Germany's continuous adherence to a policy of incremental innovation in education and training may be an obstacle in itself in modernising its education and training system. Opportunities have already been missed, *e.g.* by the decision not to borrow some of the strong components of the former East German system of education and training. On the other hand, the Germans are now confronted with the task of having to find ways to align the initial and further VET sectors more effectively. This to ensure that there is not only a logical progression of qualifications, but also to enhance worker mobility and to make vocational training a more attractive option for potential new entrants.

Since further vocational training is characterised by a lack of an organisational structure and cohesiveness, it is envisaged that any legislative changes required will entail a lengthy and difficult process, especially when considering the industrial relations issues involved. Radical reform, as enforced in education and training by the government in New Zealand, which has been criticised in this work, may be an example to consider for the Germans. But in practice may not be a workable solution. Just like, equivocally perhaps, more research into the design of the NQF, and the policies which govern it, was perhaps 'unrealistic' from a perspective of this being detrimental to the aim of politicians wanting to see a speedy 'political return' on their 'investments' in reforms.

In conclusion, this thesis has indicated that the main objective of comparative education is limited to the aim of explaining and interpreting cross-national variation which, though, will become increasingly important as education and training are now globally recognised as significant factors influencing national economic competitiveness. And although countries, like New Zealand and Germany, seem to be 'worlds' apart, geographically, economically and educationally, there are evidently, as demonstrated, some points of convergence in the development and direction of national education and training policy. Examining this is useful in its own right and could make a small but useful contribution by informing policy-makers of foreign educational concepts and practices through comparative research.

Approaches to education and training in one country may be regarded (and indeed discarded) as 'educational utopia' by other nations. In the final analysis, though, each serves country-specific needs and has salience only within their specific social and economic settings. An open mind towards overseas practices, clearly, can be valuable and is at least stimulating.

APPENDIX 1 INTERVIEW SCHEDULE

INTERVIEWS CONDUCTED IN NEW ZEALAND IN 1994 AND IN 1996

Margaret Austin, Opp spokeswoman for education	180394
Dr Lockwood Smith, Minister of Education	220394
Steve Maharey, Opp spokesman for labour and employment	220394
Devon Sutcliffe, NZ Chamber of Commerce, and Chairman of Wellington Polytechnic	250394
Euan Dempsey, CEO, Careers Service	080494
Bob Bubendorfer, CEO, Wellington Polytechnic	110494
Michael Irwin, Policy Analyst, NZ Business Roundtable	120494
Rick Julian, Industry Liaison Manager, ETSA	140494
Lyall Perris, Group Manager Policy, Ministry of Education	190494
John Gray, Ministry of Youth Affairs	210494
Neini Curulala, Ministry of Youth Affairs	210494
Marilyn Davies, Education Adviser, NZEF	280494
Dr Alan Barker, Strategic Manager, Policy, Research & Development, NZQA	290494
Stephen Wickens, Executive Director, Motor ITO	020594
Liz Bowen-Clewley, Comm.Coordinator (PTE) NZQA	050594
Gerald Minnee, Department of Labour	060594
Michael Vaughan, Framework Development Officer, NZQA	100594
Greg Armitage, Master Plumbers & Gasfitters ITO	100594
Gary Norris, Executive Director, HCITB	130594
David Lythe, Framework Director, NZQA	170594
John McCarthy, Chairman of ETSA Board, and Member of NZQA Board	200594
Stephanie Doyle, Industry Officer, NZCTU	230594
Ewen Taylor, former Assistant-Secretary NZTCB	270594
Alister Murray, Exec. Director, Furniture ITO	310594
Trevor Allesbrook, CEO, Building & Construction ITO	020694
Mike Smith, National Education Officer, NZ Engineers Union	030694
Jim Doyle, Executive Director, APNZ	070694
David Hood, CEO, NZQA	070694
Noel Scott, former Associate Minister of Education	090694
Jack Doherty, Communications Co-ordinator (Tertiary) NZQA	140694
Hel Loader, Communications Co-ordinator (Industry) NZQA	170694
David Lonsdale, Director of Training, Retail Meat ITO	200694
Peter Palmer, Manager PCET, Ministry of Education	220694
David Weaver, CEO, Windsor Engineering	270694
Dr John Hinchcliff, Director, AIT	280694
Robert Leitch, CEO, Engineering ITO	280694

Bob Willyams, CEO, Manukau Polytechnic	280694
John Berridge, Plastics ITO	280694
Harvey McQueen, Executive Director NZCTE	040794
Prof Dr Gary Hawke, Institute of Policy Studies Victoria University of Wellington	190794
Max Kerr, General Manager, ETSA	040894
Don Griffin, Principal, CIT	090894
David Lawrence, former Acting Director Continuing Education, Department of Education	150894
Bob Stuart, former Director of the VTC	220894
Sandra Lee, Spokeswoman on education for the Alliance	250894
George Peters, former Chairman of the VTC	060994
Ray Taylor, former Assistant Director General of the NZEF	260994
Marilyn Davis, Education Adviser NZEF	190496
Max Kerr, General Manager ETSA	260496
Brent Richardson, Framework Development, NZQA	260496
Michael Norrish, Framework Development Officer, NZQA (personal communication)	100696
Liz Bowen-Clewley, (personal communication)	100696
David Lythe, Professional Co-ordinator, NZQA	090796
Catherine Bennett, Acting team Leader, Policy Monitoring and Review, NZQA	110796
David Hood, CEO, NZQA	170796
Prof Dr Cedric Hall, Education Department, VUW	180796
Mika Kelekolio, Customer Service Co-ordinator and Pacific Island Project Leader, NZQA	180796
Monte Ohia, Te Pou Whanau, NZQA	190796
Joan Grace, ETSA, Skill NZ Development Project	290796

INTERVIEWS CONDUCTED IN GERMANY IN 1993 AND 1995

Dr Birgit Galler, FDP, Bonn	131293
Günter Haas, BMBW, Bonn	141293
Dr Gisela Feller, BIBB, Bonn	141293
Rudolf Rieders, BLK, Bonn	151293
Dr Barbara Dorn, BDA, Cologne	161293
Georg Dicke, Carl Duisberg Gesellschaft, Cologne	161293
S. Oliver Lübke, DGB, Dusseldorf	171293
Dieter Klause, DIHT, Bonn	201293
Eva Kuda, IGM Metall, Frankfurt	270295
Uwe Lauterbach, German Institute for International	

Educational Research (DIIPF), Frankfurt	010395
Dr Manfred Tessaring, IAB, Nuremberg	030395
Dr Ulrich Haase, BMBF, Bonn	170395
Günter Haas, BMBF, Bonn	070395
Dr Willi Maslankowski, BMBF, Bonn	070395
Dr Gisela Feller, BiBB, Bonn	080395
Richard von Bardeleben, BiBB, Bonn	080395
Ursula Beicht, BiBB, Bonn	080395
Karl Spelberg, ZDH, Bonn	090395
Dr Joachim Gerd Ulrich, BiBB, Bonn	090395
Erwin Barabosch, BiBB, Bonn	100395
Dr Elisabeth-Maria Krekel-Eiben, BiBB, Bonn	100395
Kurt Kielwein, BiBB, Bonn	100395
Prof Dr Detlef Sembill, Justus Liebig University, Giessen	130395
Gerhard Bartel, Gesamtmetall, Cologne	160395
Gernott Herrmann, KMK, Bonn	170395
S.Oliver Lübke, DGB, Dusseldorf	200395
Dr Manfred Wahle, Ruhr University, Bochum	230395
Dieter Krischok, BiBB, Berlin	270395
Rolf Jansen, BiBB, Berlin	280395
Dr Peter-Werner Kloas, BiBB, Berlin	280395
Dr Peter Dehnbostel, BiBB, Berlin	290395
Dr Wilfried Reisse, BiBB, Berlin	290395
Dr Rudolf Werner, BiBB, Berlin	290395
Hans Borch, BiBB, Berlin	290395
Bernd Schwiedrzik, BiBB, Berlin	300395
Heinrich Althoff, BiBB, Berlin	300395
Hans Krönner, The International Project on Technical and Vocational Education (UNEVOC), Berlin	300395
Ursula Hecker, BiBB, Berlin	030495
Guido Franke, BiBB, Berlin	030495
Dr Ulrich Blötz, BiBB, Berlin	030495
Dr Jochen Reuling, BiBB, Berlin	040495
Dr Ulrich Blötz, BiBB, Berlin	040495
Bernd Schwiedrzik, BiBB, Berlin	040495

Registered Standards

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Standards tell you about the skills, knowledge and understandings you have to have and be assessed against to get credit for that standard on the National Qualifications Framework (NQF).

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GENERIC COMPUTING ² Manage Computer Data		
Level:	2 ³	
Credit:	3 ⁴	
Final date for comment:	September 1995 ⁵	
Expiry Date:	December 1996	
Sub-field:	Computing	
Replacement Information:	This unit standard replaces unit standard 205.	
Purpose:	People credited with this unit standard are able to locate computer files, protect data and handle data ethically. ⁶	
Entry Information:	Open. The credit value of this unit standard is based on a person bearing the prior knowledge and skills to operate a personal computer. ⁷	
Accreditation Option:	Evaluation of documentation by NZQA. ⁸	
Moderation Option:	A centrally established and directed national moderation system has been established by NZQA. ⁹	
Special Notes:	Any computer system that allows the performance criteria to be met may be used. ¹⁰	

GENERIC COMPUTING
Manage Computer Data

Elements and Performance Criteria

Element 1

Locate data using file management procedures.

Performance criteria

- 1.1 Explanation of the use of directories (folders) identifies the advantages of meaningful names and grouping.
- 1.2 Navigation along a directory tree (folder hierarchy) is demonstrated.
- 1.3 Files are located by available file name search and the pointer utilities.

Element 2

Explain and carry out procedures to protect data.¹¹

Performance criteria

- 2.1 Common threats to the integrity of data held on computer are listed.¹²
- 2.2 Explanation of procedures identifies methods for assuring the integrity of data held in files.
- 2.3 Security procedures to prevent unauthorised access are demonstrated.
- 2.4 Log-off procedure is demonstrated.
- 2.5 A schedule for backing up files is prepared and a back-up made.
- 2.6 Files are recovered from a back-up disk.

Element 3

Explore ethical issues that relate to access to data held in computing systems.

Performance criteria

- 3.1 Ethical issues are identified and discussed.

Range: Individual privacy, corporate confidentiality, piracy and copyright.¹³
- 3.2 Responsibility to others' data is demonstrated at all times.

- 1 Unit Standard number and registration date
- 2 The title:
 - Identifies the overall learning outcome.
 - States what the learner should be able to know, do or understand.
- 3 Current value of level
 - Indicates the level assigned to the standard on the NQF.
- 4 The credit value
 - Awarded when learner meets all performance criteria for each element.
 - Number of credits reflects time for "average learner" to achieve the standard. However, learners can progress at any speed.
- 5 Final date for comment
 - Relates to the date by which comment must be made for subsequent unit standard revision.
- 6 Purpose statement
 - Expands on the title.
 - Establishes how it relates to other standards.
- 7 Entry Information
 - Describes the knowledge and skills already assumed.
- 8 Accreditation Requirement
 - What a provider must do to be able to award credit for the unit standard.
- 9 Moderation option
 - What option the industry has selected for moderation.
 - Moderation requirements must be met to award NQF.
 - Details of how moderation system works are outlined in the moderation action plan.
- 10 Special notes
 - Allow for further expansion and clarification.
 - May include definitions and range statements.

11 Elements

Describe specific outcomes.

12 Performance criteria

- Criteria against which assessment judgements are made.
- Can suggest the most appropriate method for collecting evidence.

13 Range

- Give boundaries, context or guiding examples to minimise differing interpretations.

RECOGNISED TRAINING OCCUPATIONS IN THE
METALWORKING INDUSTRY IN GERMANY

Source: BiBB, 1991

APPENDIX 4 DECISIONS OF THE NZQA BOARD
(24 September 1991)

- 1 That the National Qualifications in the Framework encompass all qualifications including degrees and advanced degrees
- 2 That the National Qualifications Framework (NQF) be open-ended at Level One
- 3 That on-job training be recognised and certificated as part of the NQF
- 4 That the components of qualifications be units of learning based on clearly identified and published learning outcomes
- 5 That a national information system be established to provide ready access to units and standards
- 6 That units of learning up to Level Seven be assigned to an appropriate level of the NQF and be entered on a national information system
- 7 That the Qualifications Authority establish and maintain a networked national database of student records
- 8 That assessment for nationally recognised qualifications be based upon clearly defined standards
- 9 That a Record of Learning be implemented
- 10 That the principle of awarding credit for prior learning against units of learning in the NQF is endorsed
- 11 That a currency for credit transfer be established
- 12 That a programme of research into methodologies for the recognition be implemented in the 1991-1992 financial year
- 13 That discussion with New Zealand universities be initiated with a view to formalising credit transfer arrangements
- 14 That a database of the users of the NQF be established
- 15 That a partnership approach to unit development be endorsed, with the Qualifications Authority in the role of adviser and quality monitor as appropriate.
- 16 That quality management be devolved progressively to providers as an integral part of the delivery of services, with quality audit by the Authority.
- 17 That there be Maori-based qualifications within the NQF.
- 18 That qualifications include a Maori dimension where that is appropriate
- 19 That qualifications consist of tailored packages of units which are normally determined by national consortia, or by single providers/enterprises

20 That qualifications be named as follows:

- 21 That the level descriptors published in Designing the Framework be rewritten to accommodate both general and vocational units of learning
- 22 That Levels One to Three be seen as approximately equivalent to years 3,4 and 5 of secondary schooling
- 23 That a single qualification, the National Certificate, be available in the senior secondary school

Source: NZQA, 1991b:29-30

BIBLIOGRAPHY

Achievement Post-School Planning Committee, **Report on Post-Compulsory National Certification**, September 1987, Wellington.

Adler, T. Dybowski, G. & Schmidt, H. 'Kann sich das duale System behaupten? Argumente für eine zukunftsorientierte Berufsausbildung, **Berufsbildung in Wissenschaft und Praxis**, 22, 1, 1993, pp.3-10.

Adler, T. & Benner, H. 'Regelung der Berufsausbildung in der Bundesrepublik Deutschland', **Ausbildungsberufe im Wandel, Ergebnisse, Veröffentlichungen und Materialien aus dem BIBB**, January 1995, Berlin, pp.13-23.

Ainley, P. & Corbett, J. 'From Vocationalism to Enterprise: social and life skills become personal and transferable, **British Journal of Sociology of Education**, 15, 3, 1994, pp.365-374.

Akkermans, M., Aquina, H. & Baakman, N. **Een zelfstudiepakket ten behoeve van het doctoraal onderwijs van de vakgroep Bestuur en Beleid, Deel I Syllabus; begeleidende teksten by de hoorcolleges**, Katholieke Universiteit, Nijmegen 1986.

Alaluf, M. & Stroobants, M. 'Does competence mobilize the worker?', **European Vocational Training Journal**, 1, 1, 1994, pp.43-52.

Alcorn, A. **Apprenticeship terminations in New Zealand**, Unpublished thesis for a Master of Arts degree, Wellington: Victoria University 1965.

Alex, L. 'Technisch-wirtschaftlicher Strukturwandel und neue Qualifikationsanforderungen unter besonderer Berücksichtigung der industriellen Metall- und Elektroberufe', in Stricker, F. & Timmermanns, D. (eds.) **Berufsbildung und Arbeitsmarkt in den 90er Jahren**, Frankfurt 1990.

Alex, L. 'Die duale Ausbildung in ständiger Bewährungsprobe', in Liesering, S., Schober, K. & Tessaring, M. (eds.), **Die Zukunft der dualen Berufsausbildung**, Nuremberg, 1994, pp.65-80.

Alliance Political Party, **Education Policy**, Wellington 1993.

Alt, C., Sauter, E. & Tillmann, H. **Berufliche Weiterbildung in Deutschland. Strukturen und Entwicklungen**, Berlin 1993.

Althusser, L. **Lenin and Philosophy and Other Essays**, New York 1971.

Altwater,E. 'Zu einigen Problemen des Staatsinterventionismus', **Prokla**, 3, 1972, pp.1-53.

Anderseck,K. 'Duale Berufsausbildung in Universität und Betrieb?', **Zeitschrift für Berufs- und Wirtschaftspädagogik**, 90, 5 ,1994, pp.447-462.

Anderson,G. 'The Employment Contracts Act: Time for a Review?', **Employment Law Bulletin**, 3, April 1994a, pp.30-31.

Anderson,G. 'The ILO Report', **Employment Law Bulletin**, 3, April 1994b, pp.31-34.

Angus,L. 'Equality, Democracy and Educational Reform', in Dawkins,D. (ed.), **Power and Politics in Education**, Sydney 1991, pp.233-273.

Anweiler,O. 'Berufsbildung in der Deutschen Demokratischen Republik unter vergleichenden Aspekten', **Berufsbildung in Wissenschaft und Praxis**, 16, 1987, pp.3-7.

Anweiler,O., Fuchs,H-J., Dorner,M. & Petermann,E. **Bildungspolitik in Deutschland 1945-1990**, Bonn 1992.

Anweiler,O., Mitter,W., Peisert,H., Schäfer,H-P. & Stratenwerth,W. **Vergleich von Bildung und Erziehung in der Bundesrepublik Deutschland und der Deutsche Demokratische Republik**, Cologne 1990.

Apple,M. 'Critical Introduction: Ideology and the State in Educational Policy', in Dale,R. **The State and Education Policy**, Milton Keynes 1989, pp.1-20.

Arbeitsgruppe Bildungsbericht am Max-Planck-Institut für Bildungsforschung, **Das Bildungswesen in der Bundesrepublik Deutschland**, Berlin 1994.

Ardagh,J. **Germany and the Germans**, London 1988.

Arnold,R. **Berufspädagogik**, Frankfurt 1990.

Arnold,R. 'Das duale System der Berufsausbildung hat eine Zukunft', **Leviathan**, 21 ,1 ,1993, pp.89-102.

Arnold,R. 'Die Krisen der Fachbildung', **Berufsbildung in Wissenschaft und Praxis**, 25, 1, 1996, pp.9-15.

Arnold,R. & Münch,J. **Fragen and das Duale System der deutschen Berufsausbildung**, Kaiserslautern 1994.

Ash,T. **In Europe's Name: Germany and the Divided Continent**, London 1994.

Ashworth,P. 'Being competent and having 'competencies'', **Journal of Further and Higher Education**, 16,3, Autumn 1992, pp.8-17.

Ashworth,P. & Saxton,J. 'On 'Competence'', **Journal of Further and Higher Education**, 14 , 1990, pp.3-25.

Ausubel,D. **The Fern and the Tiki. An American View of New Zealand National Character, Social Attitudes, and Race Relations**, New York 1965.

Autsch,B. 'Ausgangsbedingungen bei der Umstellung des DDR-Berufsbildungssystems aus der Sicht rechtlicher und organisatorischer Rahmenbedingungen', in Degen,U., Walden,G., & Berger,K. (eds.), **Berufsausbildung in den neuen Bundesländern. Daten, Analysen, Perspektiven**, Berlin 1995, pp.15-29.

Avis,J. 'Post-Fordism, Curriculum Modernisers and Radical Practice: the case of vocational education and training in England', **The Vocational Aspect of Education**, 45, 1, 1993, pp.3-14.

Bacon,F. 'The German Democratic Republic: The Other Germany - Planned Economic Security', in Fiddy,R. (ed.), **Youth, Unemployment & Training. A Collection of National Perspectives**, London 1985, pp.106-118.

Bader,R. 'Übergreifende didaktische Aspekte zur Neuordnung der Elektro-und Metallberufe', in Landesinstitut für Schule und Weiterbildung (ed.), **Fachtagung zur Neuordnung der industriellen Elektro-und Metallberufe**, Soest 1989, pp.66-77.

Bader,R. 'Berufliche Weiterbildung im dualen System', **Die berufsbildende Schule**, 42, 11, 1990, pp.643-657.

Bader,R. 'Zum Verhältnis von Lernen am Arbeitsplatz und Lernen in der Berufsschule', in Dehnbostel,P., Holz,H. & Novak,H. (eds.), **Lernen für die Zukunft durch verstärktes Lernen am Arbeitsplatz. Dezentrale Aus-und Weiterbildungskonzepte in der Praxis**, Berlin 1992, pp.225-241.

Bader,R. & Ruhland,H-J. 'Kompetenz durch Bildung und Beruf', **Die berufsbildende Schule**, 45, 7/8, 1993, pp.233-235.

Baethge,M. 'Abschied von Reformillusionen. Einige politischökonomische Aspekte zum Ende der Bildungsreform in der BRD', *Betrifft:erziehung*, 11, 1972, pp.19-28.

Baethge,M. 'Notprogramm als Reform', in Nolte,H. & Röhrs,H-J. *Das Berufsbildungsgesetz*, Bad Heilbrunn, 1979, pp.197-210.

Baethge,M. 'Berufsbildungspolitik in den siebziger Jahren: Eine Lektion in ökonomischer Macht und politischer Ohnmacht', in Lipsmeier,A. (ed.), *Berufsbildungspolitik in den 70er Jahre*, Wiesbaden 1983, pp.145-157.

Balfour,M. *Germany. The Tides of Power*, London 1992.

Ball,S. *Politics and Policy Making in Education*, London 1990.

Ball,S. *Education Markets, Choice and Social Class: The Market as a Class Strategy in the UK and the US* (unpublished paper: Centre for Educational Studies, King's College), London 1992.

Ball,S. 'Education Markets, Choice, Social Class: the market as a class strategy in the UK and the USA', *British Journal of Sociology of Education*, 14, 1, 1993, pp.3-19.

Bardeleben,R.von, Beicht,U. & Feher,K. *Cost and benefit of in-house professional and vocational training*, Bonn 1994.

Barker,A. 'Accreditation Issues: New Zealand Qualifications Authority Perspective', Paper presented to the Meeting the Challenges of the 90s Conference, Palmerston North, 30-31 July 1993a.

Barker,A. 'The New Zealand Qualifications Authority's Framework: Practical Issues in its Implementation', Paper presented to the Tertiary Education Conference, Wellington 1993b.

Barker,A. 'The Place of University Qualifications in a National Framework', Paper presented to the AITEA Conference, Hamilton, 7 July 1994.

Barker,A. 'Standards-Based Assessment: The Vision and Broader Factors', in Peddie,R. & Tuck,B. (eds.), *Setting the Standards. The Assessment of Competence in National Qualifications*, Palmerston North 1995, pp.15-31.

Barnett,M. 'Why business must not fail to lead', *The Dominion*, 27 January 1994.

Barrington, J. 'Educational Reform in New Zealand', in Ginsberg, M. (ed.) **Understanding Educational Reform in a Global Context**, New York 1991, pp.285-315.

Barrow, R. 'The Generic Fallacy', **Educational Philosophy and Theory**, 23, 1, 1991, pp.7-17.

Bates, R. Educational Reform: 'Its Role in the Economic Destruction of Society', Keynote address to the Joint AARE/NZARE Conference, Deakin University, Geelong, 22-26 November 1992.

BDA (Bundesvereinigung der Deutschen Arbeitsgeberverbände), **Weiterbildung. Ziele, Nutzen, Verantwortung und Finanzierung betrieblicher Weiterbildung**, Cologne 1989.

BDA (Bundesvereinigung der Deutschen Arbeitsgeberverbände), **Jahresbericht 1993**, Cologne 1993.

BDI (Bundesverband der Deutschen Industrie), BDA, DIHT (et al.), **Differenzierung, Durchlässigkeit, Leistung. Strukturmassnahmen zur Weiterentwicklung des Bildungswesens. Bildungspolitische Position der Spitzenverbände der Wirtschaft**, Bonn 1992.

BDI (Bundesverband der Deutschen Industrie), BDA, DIHT (et al.), **Differenzierung, Durchlässigkeit, Leistung. Vorschläge der Spitzenverbände der Wirtschaft zur Weiterentwicklung von Schule, Berufsbildung und Hochschule**, Bonn 1993.

Becker, G. **Human Capital**, New York 1964.

Beeby, C. **The Bibliography of an Idea. Beeby on Education**, Wellington 1992.

Beicht, U. 'Ausbildungsvergütungen 1993 -Entwicklung in West und Ost', **Berufsbildung in Wissenschaft und Praxis**, 23, 2, 1994, pp.42-3.

Beiderwieden, K. 'Schlüsselqualifikationen erfordern offene Methoden in der Berufsbildung', **Zeitschrift für Berufs- und Wirtschaftspädagogik**, 90, 1, 1994, pp.76-88.

Bell, D. **The Coming of Post-Industrial Society**, New York 1973.

Bengtsson, J. 'Labour Markets of the Future: the challenge to education policy makers', **European Journal of Education**, 8, 2, 1993, pp.135-157.

Benner, H. **Der Ausbildungsberuf als berufspädagogisches und bildungsökonomisches Problem**, Hannover 1977.

Benner, H. 'Die duale Berufsausbildung in Deutschland und Aspekte ihrer Weiterentwicklung im Hinblick auf die europäische Integration', **Berufsbildung in Wissenschaft und Praxis**, 21, 2, 1992, pp.25-30.

Benner, H. **Ordnung der staatlich anerkannten Ausbildungsberufe**, Berlin 1995.

Benner, H. & Püttmann, F. **20 Jahre Gemeinsames Ergebnisprotokoll. Eine kritische Darstellung des Verfahrens zur Abstimmung von Ausbildungsordnungen und Rahmenlehrplänen für die Berufsausbildung in anerkannten Ausbildungsberufen aus Bundes- und Ländersicht**, Bonn 1992.

Benner, H. & Schmidt, H. 'Aktualität der Ausbildungsberufe und Effizienz des Neuordnungsverfahrens', **Berufsbildung in Wissenschaft und Bildung**, 24, 1, 1995, pp.3-7.

Berg, I. **Education and Jobs: The Great Training Robbery**, New York 1970.

Berger, K. 'Strukturmerkmale der betrieblichen Ausbildung in Ostdeutschland', in Degen, U. Walden, G. & Berger, K. (eds.), **Berufsausbildung in den neuen Bundesländern. Daten, Analysen, Perspektiven**, Berlin 1995, pp.29-40.

Berger, P. & Luckmann, T. **The Social Construction of Reality. A Treatise in the Sociology of Knowledge**, Harmondsworth 1985.

Berghahn, V. **Modern Germany. Society, economy and politics in the twentieth century**, Cambridge 1982.

Bernhardt, E. **Handlungskompetenz als Zielkategorie ganzheitlich orientierten beruflichen Lernens nach der Neuordnung der industriellen Metallberufe**, Frankfurt 1993.

Berrien, M. **Education in New Zealand**, Washington 1964.

BiBB (Bundesinstitut für Berufsbildung), **Assessment System in Vocational Training in the Federal Republic of Germany**, Berlin 1990.

BiBB (Bundesinstitut für Berufsbildung), **Official Regulations and Training Schedules for Apprenticeship in Metalworking**, Berlin 1991.

BiBB (Bundesinstitut für Berufsbildung), **The Federal Institute for Vocational Training (BiBB) INFO** (brochure), Berlin 1992.

BiBB (Bundesinstitut für Berufsbildung), **The New Industrial Metalworking Occupations**, Berlin 1993a.

BiBB (Bundesinstitut für Berufsbildung), **Training Ordinances and the Procedure for Producing Them**, Berlin 1993b.

BiBB (Bundesinstitut für Berufsbildung), **Federal Institute for Vocational Training. Structure/Staff/Budget/Tasks**, Berlin 1994a.

BiBB (Bundesinstitut für Berufsbildung), **Rahmenstoffplan für die Ausbildung der Ausbilder und Ausbilderinnen**. Beschluss des Hauptausschusses des Bundesinstituts für Berufsbildung vom 22.11.1994, Berlin 1994b.

BiBB (Bundesinstitut für Berufsbildung), **Geschäftsverteilungsplan** (March 1994), Berlin 1994c.

BiBB (Bundesinstitut für Berufsbildung), **Haushaltplan 1995**, Berlin 1995a.

BiBB (Bundesinstitut für Berufsbildung), **'Vorbereitung UA 1 Sitzung am 30./31.März 1995'** (internal discussion paper), Berlin 1995b.

BiBB (Bundesinstitut für Berufsbildung), **Arbeitsprogramm 1996 des Bundesinstituts für Berufsbildung**, Berlin 1996a.

BiBB (Bundesinstitut für Berufsbildung), **'Über Externenprüfung zum anerkannten Berufsabschluss'**, **BiBB-Pressemitteilung**, 20, 20 June 1996b, Berlin.

BiBB (Bundesinstitut für Berufsbildung), **'In der Weiterbildung ist die Qualität entscheidend!'** **BiBB-Pressemitteilung**, 21, 26 June 1996c, Berlin.

BiBB (Bundesinstitut für Berufsbildung), **'Berufsbildung an der Schwelle zum 21.Jahrhundert'**, **BiBB-Pressemitteilung**, 33, 18 October 1996d, Berlin.

BiBB (Bundesinstitut für Berufsbildung), **Stellungnahme des Hauptausschusses des Bundesinstituts für Berufsbildung zum Entwurf des Berufsbildungsberichts 1996 des Bundesministeriums für Bildung, Wissenschaft, Forschung und Technologie** (Supplement to BWP, 25,3,1996), Berlin 1996e.

BiBB (Bundesinstitut für Berufsbildung), **Pressespiegel**, No.64, Berlin n.d.

BiBB aktuell, 'Verbesserung und Straffung der Neuordnung von Ausbildungsberufe', **BiBB aktuell**, 5, 1995, pp.5-6.

Bibbee, A. 'Spotlight on Germany Overcoming Structural Hurdles', **The OECD Observer**, 190, October/November 1994, pp. 35-37.

Biermann, H. **Berufsausbildung in der DDR. Zwischen Ausbildung und Auslese**, Opladen 1990.

Biggs, J. 'Learning outcomes or expertise?', **Australian and New Zealand Journal of Vocational Education Research**, 2, 1, 1994, pp.1-18.

Birley, R. 'British Policy in Retrospect', in Hearnden, A. (ed.) **The British in Germany. Educational Reconstruction after 1945**, London 1978, pp.46-63.

Blanke, W. 'Qualitätssicherung gemäss ISO 9000ff. in der beruflichen Bildung', **Zeitschrift für Berufs- und Wirtschaftspädagogik**, 91, 2, 1995, pp.205-208.

Blaschke, D., Koller, M., Kühlewind, G., Möller, U. & Stooss, F. 'Qualifizierung in den neuen Ländern', **Materialien aus der Arbeitsmarkt- und Berufsforschung**, 7, 1990, pp.1-33.

BLK (Bund-Länder-Kommission für Bildungsplanung und Forschungsförderung), **Modellversuche zu Doppelqualifikation/Integration**, Bonn 1990.

BLK (Bund-Länder-Kommission für Bildungsplanung und Forschungsförderung), **Differenzierung der Berufsausbildung**, Bonn 1993.

Blossfeld, H-P. 'Is the German Dual System a Model for a Modern Vocational Training System?' EUI Working Paper SPS No.91/7, San Domenico 1991.

BMAS (Bundesministerium für Arbeit und Sozialordnung), **Arbeitsförderungsgesetz**, Bonn 1994a.

BMAS (Bundesministerium für Arbeit und Sozialordnung), **Sozialbericht 1993**, Bonn 1994b.

BMBF (Bundesministerium für Bildung, Wissenschaft, Forschung und Technologie), **Grund-und Strukturdaten 1994/5**, Bonn 1994.

BMBF (Bundesministerium für Bildung, Wissenschaft, Forschung und Technologie), 'Rüttgers: 1995 Grundstein für Modernisierung des dualen Systems gelegt', **Presse-Mitteilung BMBF**, 29 December 1995a, Bonn.

BMBF (Bundesministerium für Bildung, Wissenschaft, Forschung und Technologie), **Berufsbildungsbericht 1995**, Bonn 1995b.

BMBF (Bundesministerium für Bildung, Wissenschaft, Forschung und Technologie), **Grund- und Strukturdaten 1995/96**, Bonn 1995c.

BMBF (Bundesministerium für Bildung, Wissenschaft, Forschung und Technologie), **Fragen und Antworten Zum Dualen System der deutschen Berufsausbildung**, Bonn 1995d.

BMBF (Bundesministerium für Bildung, Wissenschaft, Forschung und Technologie), 'Zukunftsbündnis Lehrstellen - vorgelegt vom Bundesminister für Bildung, Wissenschaft, Forschung und Technologie Dr. Jürgen Rüttgers; **Presse-Info**, 24 April 1996a, Bonn.

BMBF (Bundesministerium für Bildung, Wissenschaft, Forschung und Technologie), 'Rüttgers: Mehr Lehrstellen durch Tarifverträge', **Presse-Info**, 12 September 1996b, Bonn.

BMBF (Bundesministerium für Bildung, Wissenschaft, Forschung und Technologie), 'Staatssekretär Stahl: Nur lebenslanges Lernen ermöglicht künftig Erfolg', **Press-Info**, 22 October 1996c, Bonn.

BMBF (Bundesministerium für Bildung, Wissenschaft, Forschung und Technologie), **Berufsbildungsbericht 1996**, Bonn 1996d.

BM BW (Bundesministerium für Bildung und Wissenschaft), **Vocational Training Act (Berufsbildungsgesetz). Act on the Promotion of Training Places (Ausbildungsplatzförderungsgesetz)**, Bonn 1979.

BM BW (Bundesministerium für Bildung und Wissenschaft), **Berufsbildungsbericht 1991**, Bonn 1991a.

BM BW (Bundesministerium für Bildung und Wissenschaft), **Daten und Fakten über Jugendliche ohne abgeschlossene Berufsausbildung**, Bonn 1991b.

BM BW (Bundesministerium für Bildung und Wissenschaft), **Sozialpädagogisch Orientierte Berufsausbildung**, Bonn 1992.

BM BW (Bundesministerium für Bildung und Wissenschaft), 'Strukturelle Veränderungen und Konsequenzen für Bildung und Ausbildung', **Presse Info BM BW**, Bonn, 11 November 1993a.

BM BW (Bundesministerium für Bildung und Wissenschaft), **Berufsbildungsbericht 1993**, Bonn 1993b.

BM BW (Bundesministerium für Bildung und Wissenschaft), **Berufsbildungsbericht 1994**, Bonn 1994a.

BM BW (Bundesministerium für Bildung und Wissenschaft), 'Zur Lage der beruflichen Bildung und daraus abzuleitende vordringliche Massnahmen', Arbeitsgruppe "Berufliche Bildung" paper, 10 February 1994, Bonn 1994b.

BM BW (Bundesministerium für Bildung und Wissenschaft), **Ausbildung und Beruf**, Bonn 1994c.

BM Wi (Bundesministerium für Wirtschaft), **Vorrang für Beschäftigung. Jahreswirtschaftsbericht der Bundesregierung '96**, Bonn 1996.

Bock, K. **Der 2. Berufsbildungsweg. Kriterien für die Gestaltung von Berufsbildungsangeboten für nicht formal qualifizierte Arbeitnehmerinnen und Arbeitnehmer**, Frankfurt 1993.

Bohnenkamp, H. *et al.*, **Empfehlungen und Gutachten des Deutschen Ausschusses für das Erziehungswesen und Bildungswesen 1953-1964**, Stuttgart 1966.

Bolger, J. **Apprenticeship for Tomorrow, A Government Statement on Directions for Trade Training in New Zealand**, Wellington 1981.

Bolger, J., Richardson, R. & Birch, W. **Economic and Social Initiative - December 1990. Statements to the House of Representatives**, Wellington 1990.

Bollard, A. & Mayes, D. 'Lessons for Europe from New Zealand's Liberalisation Experience', **National Institute Economic Review**, February 1993, pp.81-97.

Boston, J. 'The Funding of Tertiary Education', in Middleton, S., Codd, J. & Jones, A. (eds.), **New Zealand Education Policy Today. Critical Perspectives**, Wellington 1990, pp.161-177.

Boston, J. 'The Theoretical Underpinnings of Public Sector Restructuring in New Zealand', Boston, J., Martin, J., Pallott, J. & Walsh, P. (eds.), **Reshaping the State. New Zealand's Bureaucratic Revolution**, Auckland 1991, pp.1-26.

Boston, J. 'Redesigning The Welfare State in New Zealand: From Social Democracy to Market Liberalism?', **Public Sector**, 15, 1, 1992, pp.3-7.

Boston, J., Haig, B. & Lauder, H. 'The Third Wave: a Critique of the New Zealand Treasury's Report on Education. Part II', **New Zealand Journal of Educational Studies**, 23, 1, 1988, pp.115-143.

Bowden, J. & Masters, G. **Implications for Higher Education of a Competency-Based Approach to Education and Training** (Interim report), Canberra 1992.

Bowles, S. & Gintis, H. **Schooling in Capitalist America: Educational Reform and the Contradictions of Economic Life**, New York 1976.

Boyd, S. 'School changes delayed', **The Evening Post**, 19 July 1996.

Braun, F. 'Vocational Training as a Link between the Schools and the Labour Market: the dual system in the Federal Republic of Germany', **Comparative Education**, 23, 2, 1987, pp.123-143.

Braverman, H. **Labor and Monopoly Capital**, New York 1974.

Bridges, D. 'Transferable Skills: a philosophical perspective', **Studies in Higher Education**, 18, 1, 1993, pp.43-51.

Brinkmann, C. 'Arbeitsmarktentwicklung und Arbeitsmarktpolitik in den neuen Bundesländern', in Jansen, R. (ed.), **Arbeitsmarkt und Berufsausbildung in den neuen Ländern**, Berlin, 1995, pp.7-31.

Broadfoot, P. 'Changing priorities in assessment: an international reform agenda', Paper presented to the Qualifications For The 21st Century Conference, Wellington, 21-24 January 1992.

Broady, D. 'Critique of the political economy of education: The Prokla approach', **Economic and Industrial Democracy**, 2, 1981, pp.141-89.

Brodner, P. **Fabrik 2000. Alternative Entwicklungspfade in die Zukunft der Fabrik**, Berlin 1985.

Broeder, C. **den The match between education and work: What can we learn from the German apprenticeship system?**, The Hague 1995.

Brooking, T. 'Economic Transformation', in Oliver, W. (ed.) with Williams, B. **The Oxford History of New Zealand**, Wellington 1981, pp.226-249.

Brown, K. 'Varsities see threat to their autonomy', **The Evening Post**, 12 May 1992.

Brown, L. (ed.), **The New Shorter Oxford English Dictionary**, Volume 2 N-Z, Oxford 1993.

Brown, P. 'The 'Third Wave': education and the ideology of parentocracy', **British Journal of Sociology of Education**, 11, 1, 1990, pp.65-85.

Brown, P. 'Cultural capital and social exclusion: some observations on recent trends in education, employment and the labour market', **Work, Employment & Society**, 9, 1, 1995, pp.29-51.

Brown, P. & Lauder, H. 'Education, Economy and Social Change', **International Studies in Sociology of Education**, 1, 1, 1991, pp.3-23.

Brown, P. & Lauder, H. 'Education, Economy, and Society: An Introduction to a New Agenda', in Brown, P. & Lauder, H. (eds.), **Education for Economic Survival. From Fordism to Post-Fordism?**, London, 1992, pp.1-44.

Buchanan, J. 'Towards Analysis of Closed Behavioral Systems', in Buchanan, J. & Tollison, R. (eds.), **Theory of Public Choice. Political Applications of Economics**, Ann Arbor 1972, pp.11-23.

Bundesanstalt für Arbeit, **Handbuch zur Berufswahlvorbereitung**, Nuremberg 1992.

Bundesanstalt für Arbeit, **Beruf Aktuell 1993/4**, Nuremberg 1993.

Bundesanstalt für Arbeit, **Arbeitsmarkt 1993**, Nuremberg 1994.

Bunk, G. 'Teaching Competence in Initial and Continuing Vocational Training in the Federal Republic of Germany', **European Vocational Training Journal**, 1, 1994, pp.8-14.

Bunk, G. and Zedler, R. **Neue Methoden und Konzepte beruflicher Bildung**, Cologne 1986.

Bunk,G., Kaiser,M. & Zedler,R. 'Schlüsselqualifikationen - Intention, Modifikation und Realisation in der beruflichen Aus- und Weiterbildung, **Mitteilungen aus der Arbeitsmarkt- und Berufsforschung**, 24, 2, 1991, pp.365-374.

Burke,J. & Jessup,G. 'Assessment in NVQs: disentangling validity from reliability', in Horton,T. (ed.), **Assessment Debates**, London 1990, pp.188-196.

Burkhardt,D. 'Strukturen der Berufsbildung in der DDR', in Seyfried,B. & Wordelmann,P. (eds.), **Neue Länder - Neue Berufsausbildung?**, Berlin 1992, pp.31-49.

Burleigh,A. "'Turning the apprenticeship system around'", Paper presented to the International Vocational Education and Training Association Conference, Las Vegas, December 1987, pp.1-6.

Burleigh,A. 'DACUM: Its Influence and Impact on Vocational Education', in Philips,D., Lealand,G. & McDonald,G. (eds.), **The Impact on American Ideas on New Zealand's Education Policy, Practice and Thinking**, Wellington 1989, pp.226-233.

Burrell,S. 'Human capital' in doubt', **The Australian Financial Review**, 9 June 1993, p.144.

Buttler,F. & Tessaring,M. 'Humankapital als Standortfaktor', **Mitteilungen aus der Arbeitsmarkt- und Berufsforschung**, 4, 1993, pp.467-476.

Cabinet Ad Hoc Committee on Employment and Training, **Minutes of the Committee's Meeting held on 29 October 1986**, Wellington.

Cabinet Ad Hoc Committee on Employment and Training, **Further Education and Training: Who Should Pay?**, Cabinet Ad Hoc Committee on Employment and Training, Wellington 1987.

Cabinet Ad Hoc Committee on Learning for Life, **Minutes of the Committee's Meeting held on 7 July 1989**, Wellington.

Calchera,F. & Weber,J. **Entwicklung und Förderung von Basiskompetenzen/ Schlüsselqualifikationen**, Berlin 1990.

Callister,P. **Tomorrow's Skills**, Wellington 1990.

Campbell,C. 'Apprenticeship Training in Germany: Structure of the Dual System', **International Journal of Vocational Apprenticeship, Education and Training**, 2, 2, 1994, pp.51-66.

Campbell,D. 'Experiments as Arguments', **Knowledge: Creation, Diffusion, Utilization**, 3, 1982.

Carnoy,M. 'Education, Economy and the State', in Apple,M. (ed.), **Cultural and Economic Reproduction in Education. Essays in Class, Ideology and the State**, London 1982, pp.79-126.

Carr,M. & May,H. 'The politics and the pitfalls of teacher education unit standards for the new national qualifications framework: early childhood issues', Paper presented to the NZARE Conference, Waikato University, Hamilton, December 1993.

Casey,B. 'The Dual Apprenticeship System and the Recruitment and Retention of Young People in West Germany', **British Journal of Industrial Relations**, 24, 1986, pp.63-81.

Catherall,S. 'Universities join national qualifications framework', **The Dominion**, 18 November 1994.

CDU (Christlich Demokratische Union Deutschlands), **Erziehung und Ausbildung in unserem freiheitlichen und demokratischen Bildungssystem, Beschluss des 4.Parteitags der CDU Deutschlands** (education manifesto), Bonn n.d.

CEDEFOP, **Demarcation of occupational groups/occupational fields with regard to vocational training at skilled level in the European Community**, Berlin 1982.

CEDEFOP, **Das Berufsbildungssystem in der Bundesrepublik Deutschland**, Brussel 1994a.

CEDEFOP, **Systems and procedures of certification of qualifications in the Federal Republic of Germany**, Berlin 1994b.

CEDEFOP, **Teachers and trainers in vocational training. Volume 1: Germany, Spain, France and the United Kingdom**, Luxembourg 1995.

Chaberny,A., Müller,G. & Parmentier,K. **Fachkräfte in anerkannten Ausbildungsberufen**, Nuremberg 1992.

Chapman,P. **The Economics of Training**, New York 1993.

Chion-Kenny,L. 'Negotiating the Challenge of Outcome-Based Education', **Education Monitor**, 5, 2, 1994, pp.96-100.

Chisholm,A. **'The Skill New Zealand Strategy -the Qualifications Framework & Industry'**, Paper presented to the Global Competencies: Workplace Outcomes Conference, Sydney, 28 February-3 March 1995 (Conference Papers, Stream 3: International Dimensions, pp.228-239).

Chubb,J. & Moe,T. **Politics, Markets and America's Schools**, Washington 1990.

Claessens,D., Klönne,A. & Tschoepe,A. **Sozialkunde der Bundesrepublik Deutschland. Grundlagen, Strukturen, Trends in Wirtschaft und Gesellschaft**, Reinbeck 1989.

Clarke,L., Lange,T., Shackleton,J. & Walsh,S. 'Die politische Ökonomie der Berufsbildung in Grossbritannien und in Deutschland', **Zeitschrift für Pädagogik**, 40, 3, 1994, pp.373-388.

Coad,N. & Lawrence,D. **Draft report on the review of the Authority for Advanced Vocational Awards and the New Zealand Trades Certification Board**, Wellington 1985.

Codd,J. 'Educational Policy and the Crisis of the New Zealand State', in Middleton,S., Codd,J. and Jones,A. (eds.), **New Zealand Education Policy Today**, Wellington 1990, pp.191-205.

Codd,J. **Designing a framework for university qualifications: a question of standards**, Palmerston North 1994.

Codd,J., Harker,R. & Nash,R. 'Education, Politics and the Economic Crisis', in Codd,J., Harker,R. & Nash,R. (eds.), **Political Issues in New Zealand Education**. Second Edition, Palmerston North 1990a, pp.7-21.

Codd,J., Gordon,L & Harker,R. 'Education and the Role of the State: Devolution and Control Post-Picot', in Lauder,H. & Wylie,C. (eds.), **Towards Successful Schooling**, London 1990b, pp.15-32.

Codd,J., McAlpine,D. & Poskitt,J. 'Assessment Policies in New Zealand: Educational Reform or Political Agenda?', in Peddie,R. & Tuck,B. (eds.), **Setting the Standards. The Assessment of Competence in National Qualifications**, Palmerston North 1995, pp.32-58.

Cohen,P. 'Against the New Vocationalism', Bates,I. *et al.*, **Schooling for the Dole? The New Vocationalism**, London 1984, pp.104-169.

Cohen,R., Flowers,R., McDonald,R. & Schaafsma,H. **Learning from experience counts. Recognition of prior learning in Australian universities**, Sydney 1993.

Collett,A. **'Quality -Matching the Reality with the Rhetoric A Journey Not a Destination'**, Paper presented to the Quality Assurance in Education & Training Conference, Wellington, 10-12 May 1994.

Collins,R. **The Credential Society. An Historical Sociology of Education and Stratification**, New York 1979.

Commission of the European Communities, **Commission Memorandum on Vocational Training in the European Community in the 1990's**, Brussels n.d.

Committee on Education, Training and Research, **Report of the Committee on Education, Training and Research**, National Development Conference, May 1969, Wellington 1969.

Committee to advise the Australian Education Council (AEC)/Ministers for Vocational Education, Employment and Training (MOVEET) on employment-related Key Competencies for post-compulsory education and training, **Putting General Education to Work: The Key Competencies Report** (Mayer report), Canberra 1992.

Consedine,B. 'Inequality and the Egalitarian Myth', in Novitz,D. & Willmott,B. **Culture and Identity in New Zealand**, Wellington 1990, pp.172-186.

Coogan,P. **Standards-Based Assessment: Lessons for New Zealand from the United Kingdom**, London 1996.

Coombs,F. 'Comparative Studies of Educational Policy', in Postlethwaite,T. (ed.), **The Encyclopaedia of Comparative Education and National Systems of Education**, Oxford 1988, pp.29-31.

Cooney,M. 'What teachers think of the framework', **The Press**, 20 June 1995.

Crocombe,G., Enright,M. & Porter,M. **Upgrading New Zealand's Competitive Advantage**, Oxford 1991.

Croft,C. **'The Conflicting World of Standards-Based Assessment'**, Paper presented to the 15th National Conference of the New Zealand Association for Research in Education, Hamilton, 2-5 December 1993.

Croft,C. **'Standards-based assessment - What do we know? What should we know?'**, Paper delivered to the 16th National Conference of the New Zealand Association for Research into Education, Christchurch, 1-4 December 1994.

Crombie,W. 'The New Zealand National Curriculum: Assessing Language Competence Within the Framework', in Peddie,R. & Tuck,B. (eds.), **Setting the Standards. The Assessment of Competence in National Qualifications**, Palmerston North 1995, pp.99-119.

Crozier,R. **Letter to D.Hood**, The Association of University Teachers of New Zealand, Wellington, 16 November 1990.

Curtain,R. & Hayton,G. 'The Use and Abuse of a Competency Standards Framework in Australia: a comparative perspective', **Assessment in Education**, 2, 2, 1995, pp.205-224.

Dahrendorf,R. **Bildung ist Bürgerrecht. Plädoyer für eine aktive Bildungspolitik**, Osnabrück 1965.

Dahrendorf,R. **Gesellschaft und Demokratie in Deutschland**, Munich 1968.

Dakin,J. **Education in New Zealand**, Auckland 1973.

Dale,R. **The State and Education Policy**, Milton Keynes 1989.

Dale,R. 'The State and Education', Winter Lecture, University of Auckland, 21 July 1992.

Dale,R. & Ozga,J. **Introducing education policy: Principles and perspectives**, Milton Keynes 1991.

Dale,R. & Ozga,J. 'Two Hemispheres - Both 'New Right'?: 1980s Education Reform in New Zealand and England and Wales', in Lingard,B., Knight,J. & Porter,P. (eds.), **Schooling Reform in Hard Times**, London 1993, pp.63-87.

Dankbaar,B. 'New Production Concepts, Management Strategies and the Quality of Work', **Work, Employment & Society**, 2, 1, 1988, pp.25-50.

Dauenhauer,E. **Berufsbildungspolitik**, Berlin 1981. Davids,S. & Kloas,P-W. 'Von Ungelernten zum Facharbeiter - Nachholen einer Berufsausbildung in dualer Form', **Berufsbildung in Wissenschaft und Praxis**, 23, 1, 1994, pp.3-8.

Davies,M. 'A Prospect for a New Partnership Paradigm', An address on the theme of Vocational and Technical Education: Retrospect and Prospect, presented in the Waikato Polytechnic 25th Jubilee Lecture Series, Hamilton, 21 July 1993.

Deeks,J., Parker,J. & Ryan,R. **Labour and Employment Relations in New Zealand**, Auckland 1994.

Degen,U. 'Übernahmechancen von Jugendlichen nach Abschluss der Ausbildung', in BiBB, **Berufliche bildung in den neuen Bundesländern, Ergebnisse, Veröffentlichungen und Materialien aus dem BIBB**, January 1994, pp.73-4.

Degen,U. & Walden,G. 'Ausbildungsengagement der Betriebe, Qualifikation des Ausbildungspersonal und Unterstützungsmöglichkeiten für Ausbildungs- betriebe in den neuen Ländern, **Wirtschaft und Berufserziehung**, 46, 11, 1994a, pp.336-349.

Degen,U. & Walden,G. 'Situation, Organisation und Gestaltung der betrieblichen Berufsausbildung in den neuen Bundesländern', **Informationen für die Beratungs- und Vermittlungsdienst der Bundesanstalt für Arbeit**, 23, 8 June 1994b, pp.2055-2078.

Degen,U. & Walden,G. 'Arbeitsmarkt und Beschäftigung in den neuen Bundesländern', in Degen,U., Walden,G. & Berger,K. **Berufsausbildung in den neuen Bundesländern. Daten, Analysen, Perspektiven**, Berlin 1995a, pp.40-49.

Degen,U. & Walden,G. 'Perspektiven der Aus- und Weiterbildung in den neuen Bundesländern', in Degen,U., Walden,G. & Berger,K. (eds.), **Berufsausbildung in den neuen Bundesländern. Daten, Analysen, Perspektiven**, Berlin 1995b, pp.175-179.

Dehnbostel,P. 'Doppelqualifizierende Bildungsgänge in den neuen Bundesländern?' in Seyfried,B. & Wordelmann,P. (eds.), **Neue Länder - Neue Berufsausbildung?**, Berlin 1992, pp.437-454.

Dehnbostel,P. 'Bericht über einen EU-Studienaufenthalt in Grossbritannien', **Eurotecnet Newsletter**, 1, 1994, pp.12-14.

Dehnbostel,P., Holz,H. & Novak,H (eds.), **Lernen für die Zukunft durch verstärktes Lernen am Arbeitsplatz**, Berlin 1992. Dehnbostel,P. & Walter-Lezius,H-J. (eds.), **Didaktik moderner Berufsbildung. Standorte, Entwicklungen, Perspektiven**, Berlin 1995.

Dehnbostel,P., Holz,H. & Novak,H. (eds.), **Neue Lernorte und Lernortkombinationen. Erfahrungen und Erkenntnisse aus dezentralen Berufsbildungskonzepten**, Berlin 1996.

Deissinger,T. 'The Evolution of the Modern Vocational Training Systems in England and Germany: a comparative view', **Compare**, 24, 1994a, pp.17-36.

Deissinger, T. 'Das Reformkonzept der "Nationalen beruflichen Qualifikationen". Eine Annäherung der englischen Berufsbildungspolitik and das "Berufsprinzip"?', *Bildung und Erziehung*, 47, 3, 1994b, pp.305-328.

Deleuze, G. 'Postscript on the societies in control', *October*, 59, pp.4-7.

Demaine, J. *Contemporary Theories in the Sociology of Education*, London 1981.

Department of Education, *Notes of an informal meeting of AAVA, TCB and Continuing Education Division*, 29 November 1985, Wellington.

Department of Education, *Learning and Achieving. Second Report of the Committee of Inquiry into Curriculum, Assessment and Qualifications in forms 5 to 7*, Wellington 1986.

Department of Education, *Report on discussions ensuing from the visit of Mr Tom McCool, Chief Executive, Scottish Vocational Education Council*, Wellington 1987a.

Department of Education, *Alternatives to universities in tertiary education*, Wellington 1987b.

Department of Education, *Report on the formation of a national validation body*, 26 november 1987c, Wellington.

Department of Education, *Tertiary Education in New Zealand: Issues and Comment*, Wellington 1987d.

Department of Education, *Administering for Excellence. Report of the Taskforce to Review Education Administration*, Wellington 1988a.

Department of Education, *Report on Submissions to the Tertiary Reviews*, Wellington 1988b.

Department of Education, *Assessment for Better Learning. A Public Discussion Document*, Wellington 1989.

Department of Education, 'What system of quality control do we need: validation, accreditation and moderation? Do we need input controls as well as output controls?', Wellington n.d.

Departments of Education and Labour, **'Green Paper on the New Zealand vocational education and training system and institutional arrangements in the labour market'** (unpublished draft), Wellington 1986.

Departments of Education and Labour, **'Formation of a national vocational qualifications body'**, Paper presented to the Minister of Employment and the Associate Minister of Education, 7 March 1988, Wellington.

Department of Employment, Education and Training, **Country Education Profiles: Germany. A Comparative Study**, Canberra 1992.

Department of Labour, Report of the Department of Labour, **Appendix to the House of Representatives**, 1923, H-11.

Department of Labour, **'Skill Imbalances: Overview'**, Internal paper, Wellington 1994.

Der Bundesminister für Bildung und Wissenschaft, **'Grundsätze zur Neuordnung der beruflichen Bildung (Markierungspunkte)'**, in Nolte, H. & Röhrs, H-J. **Das Berufsbildungsgesetz**, Bad Heilbrunn, 1979, pp.90-112.

Der Bundesminister für Bildung und Wissenschaft, **Ausbildungsordnungen, Erläuterungen und Hinweise zur Erarbeitung von Ausbildungsordnungen nach dem Berufsbildungsgesetz und der Handwerksordnung**, Bonn 1987a.

Der Bundesminister für Bildung und Wissenschaft, **Wissenschaftliche und wirtschaftliche Effizienz des Bundesinstituts für Berufsbildung. Untersuchung und Stellungnahmen**, Bonn 1987b.

Der Bundesminister für Bildung und Wissenschaft, **Europäischer Binnenmarkt und das Bildungssystem. Ein Gutachten**, Bonn 1991.

Der Bundesminister für Bildung und Wissenschaft, **Vocational Training Act (Berufsbildungsgesetz). Vocational Training Promotion Act (Berufsbildungsförderungsgesetz)**, Bonn 1992.

Deutscher Bildungsrat, **Empfehlungen der Bildungskommission: Zur Verbesserung der Lehrlingsausbildung**, Bonn 1969.

Deutscher Bildungsrat, **Empfehlungen der Bildungskommission. Strukturplan für das Bildungswesen**, Stuttgart 1970.

Deutscher Bildungsrat, **Empfehlungen der Bildungskommission. Zur Neuordnung der Sekundarstufe II. Konzept für eine Verbindung von allgemeinem mit beruflichem Lernen**, Bonn 1974. Deutscher Bundestag, **Zukünftige Bildungspolitik - Bildung 2000**, Bonn 1990.

Deutscher Gewerkschaftsbund (DGB), 'Stellungnahme des Deutschen Gewerkschaftsbundes zu den Grundsätzen der Bundesregierung zur Neuordnung der beruflichen Bildung (Markierungspunkte)', in Nolte, H. & Röhrs, H.-J., **Das Berufsbildungsgesetz**, Bad Heilbrunn, 1979, pp.121-145.

Deutschland, 'Five years of German unity', *Deutschland*, 4, August 1995, p.E.

DIHT (Deutsche Industrie-und Handelstag), 'DIHT-Markierungspunkte zur beruflichen Bildung', in Nolte, H. & Röhrs, H.-J. **Das Berufsbildungsgesetz**, Bad Heilbrunn, 1979, pp.112-121.

DIHT (Deutsche Industrie-und Handelstag), **Industrie-und Handelskammern**, Bonn 1991.

DIHT (Deutsche Industrie-und Handelstag), **Gesetze zur Berufsbildung**, Bonn 1992.

DIHT (Deutscher Industrie-und Handelstag), **Ausbildung der Ausbilder**, Bonn 1993.

DIHT (Deutscher Industrie-und Handelstag), 'Verfassungsreform darf berufliche Bildung nicht zersplittern', **Berufsbildungsbildung. Weiterbildung. Bildungspolitik 1993/4**, 1994 Bonn, pp.29-30.

DIHT (Deutscher Industrie-und Handelstag), 'Modellkonzept "Duale Berufsbildung im Verbund"', in Gleichwertigkeit beruflicher und allgemeiner Bildung. Hochschulzugang für Berufserfahrene. - Stellungnahme und Vorschläge -, **Ergebnisse, Veröffentlichungen und Materialien aus dem BiBB**, Berlin 1995, pp.175-184.

DIHT, Gesamtmetall and ZVEI, **Die neuen Metall-und Elektroberufe**, Cologne 1992.

Doherty, S. 'Building Better Futures: The Role Of Skills Development In The Agenda Of Unions', Notes for a presentation to Unions, Industry Training and the NZQA Framework seminar, 25 August 1993, Christchurch.

Dore, R. **The Diploma Disease. Education, Qualification and Development**, London 1976. Dougherty, C. 'The German Dual System: a heretical view', **European Journal of Education**, 22, 2, 1987, pp.195-199.

Dörig, R. 'Schlüsselqualifikationen - Transferwissen und pädagogische Denkhaltung', **Zeitschrift für Berufs- und Wirtschaftspädagogik**, 91, 2, 1995, pp.117-133.

Drake, K. 'Company and public policies on training: Some European experience', **Journal of Education Policy**, 3, 4, 1988, pp.311-321.

Drexel, I. 'Brückenqualifikationen zwischen Facharbeiter und Ingenieur - für eine Revitalisierung von Facharbeiteraufstieg', **Berufsbildung in Wissenschaft und Praxis**, 23, 4, 1994, pp.3-8.

Drucker, P. **Post-Capitalist Society**, New York 1993.

Druckman, D. & Bjork, R. (eds.), **In the mind's eye: Enhancing human performance**, Washington 1991.

Dunstall, G. 'The Social Pattern', in Oliver, W. (ed.) with Williams, B. **The Oxford History of New Zealand**, Wellington 1981, pp.396-429.

Dusseldorp Skills Forum, **A Client-Focussed Vocational Education and Training System?**, Sydney 1993.

Dybowski, G., Pütz, H., Sauter, E. & Schmidt, H. 'Ein Weg aus der Sackgasse - Plädoyer für ein eigenständiges und gleichwertiges Berufsbildungssystem', **Berufsbildung in Wissenschaft und Praxis**, 23, 6, 1994, pp.3-13.

Dye, T. **Understanding public policy**, Englewood Cliffs 1978.

Ebner, H. 'Facetten und Elemente didaktischer Handlungsorientierung', in Pätzold, G. (ed.), **Handlungsorientierung in der beruflichen Bildung**, Frankfurt 1992, pp.33-53.

Eckert, M. 'Handlungsorientiertes Lernen in der beruflichen Bildung - Theoretisch Bezüge und praktische Konsequenzen', in Pätzold, G. (ed.), **Handlungsorientierung in der beruflichen Bildung**, Frankfurt 1992, pp.55-78.

Eckstein, M. 'Concepts and Theories in Comparative Education', in Postlethwaite, T. (ed.), **The Encyclopaedia of Comparative Education and National Systems of Education**, Oxford 1988, pp.7-9.

Education & Training, 'The chapter on 'Education, vocational training and youth' of the Treaty on the European Union', **Education & Training**, 4, March 1992, pp.4-5.

Education & Training Support Agency (ETSA), **New Directions. Summary of New Directions Conference on Industry Based Training for the 1990s and Beyond**, 26-28 June 1990, Wellington.

Education & Training Support Agency (ETSA), **The Government's New Industry Skills Training Strategy**, Wellington 1991a.

Education & Training Support Agency (ETSA), 'Key points in budget announcements', **Skills Development for Work**, 23 August 1991b.

Education & Training Support Agency (ETSA), **Apprentices and The Industry Training Act. A Guide for Employers**, Wellington 1992.

Education & Training Support Agency (ETSA), 'Skill New Zealand. Lifelong Education and Training', **Skills Development for Work**, 10, Winter 1993a, p.6.

Education & Training Support Agency (ETSA), **Post-Election Briefing Paper**, Wellington 1993b.

Education & Training Support Agency (ETSA), **A-Z Guide for ITOs**, Wellington 1995.

Education & Training Support Agency (ETSA), **Estimated trainee numbers by December 1996**, Wellington, 1996a.

Education & Training Support Agency (ETSA), **Skill New Zealand: A Stocktake, June 1996**, Wellington 1996b.

Education & Training Support Agency (ETSA), **Total Industry Trainees 1972-1995**, Wellington 26 January 1996c.

Education & Training Support Agency (ETSA) and New Zealand Qualifications Authority (NZQA), 'Students Evaluate NQF', **Skill New Zealand Newsletter**, 8, February 1996a, p.5.

Education & Training Support Agency (ETSA) and New Zealand Qualifications Authority (NZQA), **Progress Update - February 1996**, Wellington 1996b, p.3.

Education & Training Support Agency (ETSA) and New Zealand Qualifications Authority (NZQA), **ITO Update**, 31 May 1996c, p.2.

Education & Training Support Agency (ETSA) and New Zealand Qualifications Authority (NZQA), 'TESSO Merger', **Skill New Zealand Newsletter**, 10, June 1996d, p.6.

Education & Training Support Agency (ETSA) and New Zealand Qualifications Authority (NZQA), **Skill New Zealand. Lifelong Education and Training. An Introduction**, Wellington n.d.

Education Gazette, 'Policy statement', **Education Gazette**, 16 April 1991, pp.1-2.

Education Review Office (ERO), **Report of the Education Review Office. Financial Statements for Period 1 October 1989 to 30 June 1990**, Wellington 1990.

Education Review Office (ERO), **Assessing Student Achievement, National Education Evaluation Reports**, 3, Autumn 1995a.

Education Review Office (ERO), 'The Senior Secondary School: Implications of Change', **National Education Evaluation Reports**, 7, Winter 1995b.

Education Review Office (ERO), 'School-Business Links', **National Education Evaluation Reports**, 2, Autumn 1996a.

Education Review Office (ERO), 'Addressing Barriers to Learning', **National Education Evaluation Reports**, 6, Winter 1996b.

Elkin, G. & Inkson, K. **Human capital development in New Zealand: changing perspectives**, Dunedin 1994.

Elley, W. 'Assessment by criteria: superior or inferior?', paper presented to the seminar on Assessment and Evaluation, July 1987, Auckland.

Elley, W. 'Towards a National Qualifications Framework', Submission made to NZQA, University of Canterbury, Christchurch, 20 November 1990.

Elley, W. 'Is standards-based assessment feasible? some blunt words about our blunt instruments', Paper presented to the National Workshop on Professional Development in Educational Assessment, Wellington, May 1992.

Elley, W. 'Curriculum reform: forwards or backwards?', **New Zealand Annual Review of Education**, 3, 1993, pp.37-49.

Elley,W. 'Fundamental flaw at the heart of the new qualifications plan', **The Press**, 17 November 1994.

Elley,W. 'What is Wrong with Standards-Based Assessment?', in Peddie,R. & Tuck,B. (eds.), **Setting the Standards. The Assessment of Competence in National Qualifications**, Palmerston North 1995, pp.78-98.

Elmeskov,J. 'Germany: The Structures of Corporate Governance', **The OECD Observer**, No.196, October/November 1995, pp.46-47.

Engel,D. & Rosenthal,H-J. **Berufliche Bildung und Berufsbildungspolitik in der Bundesrepublik Deutschland 1960-1970. Situation und Perspektiven**, Wiesbaden 1970.

Ernst,H. 'Dualismus in der Berufsausbildung der DDR?', in Twardy,M. (ed.), **Duales System zwischen Tradition und Innovation**, Cologne 1991, pp.241-250.

Europa Publications Ltd, **The Europa Year Book 1995**, Vol.1, London 1995.

Evans,S. 'No other country has taken economic revolution so far', **The Dominion**, 11 September 1996, p.21.

Evans,K. & Heinz,W. 'Studying Forms of Transition: methodological innovation in a cross-national study of youth transition and labour market entry in England and Germany', **Comparative Education**, 29, 2, 1993, pp.145-158.

Evans,K. & Heinz,W. 'Flexibility, learning and risk: work, training and early careers in England and Germany', **Education + Training**, 37, 5, 1995, pp.3-11.

Fabi,B. 'The New Zealand "Green Paper" on Higher Education: The Human Resource Management Dimension', **Australian Bulletin of Labour**, 14, 2, 1988, pp.401-413.

Fägerlind,I. & Saha,L. **Education and National Development: A Comparative Perspective**, Oxford 1983.

Famularo,D. 'The Levy-Go-Round', **The Dominion**, 14 April 1994.

Fargher,R. 'Vocational qualifications in New Zealand' (A report on the visit of Richard Sweet and Jack Dusseldorp to New Zealand), Wellington 1988.

FDP (Freie Demokratische Partei), **Argumente '90**, Hürth 1990.

Feldmann,T. 'Schlüsselqualifikationen zwischen Funktionalität und Dysfunktion', **Die berufsbildende Schule**, 45, 3, 1993, pp.83-86.

Field,J. 'Competency and the Pedagogy of Labour', **Studies in the Education of Adults**, 23, 1, April 1991, pp.41-52.

Finegold,D. & Soskice,D. 'The failure of training in Britain: analysis and prescription', **Oxford Review of Economic Policy**, 4, 3, 1988, pp.21-53.

Finlay,I. & Niven,S. 'Characteristics of Effective Vocational Education and Training Policies: An International Comparative Perspective', **International Journal of Vocational Education and Training**, 4, 1, 1996, pp.5-22.

Fitzsimons,P. & Peters,M. 'Human capital theory and the industry training strategy in New Zealand', **Journal of Education Policy**, 9, 3, 1994, pp.245-266.

Flothow,K. **Förderung von Handlungskompetenz in der beruflichen Erstausbildung durch Lern- und Arbeitstechniken**, Bergisch Gladbach 1992.

Flower,F. & Russell,R. **The Industrial Tutor in the Federal Republic of Germany**, Bristol 1982.

Foster,P. 'The vocational school fallacy in development planning', in Anderson,C. & Bowman,M. (eds.), **Education and Economic Development**, Chicago 1965.

Foulkes,A. 'The Impact of the Employment Contracts Act on the Trade Union Movement', **Public Sector**, 15, 2, 1992, pp.11-12.

Frackmann,M. 'Überprüfung der Prüfer', **Gewerkschaftliche Bildungspolitik**, 12, 1992, pp.290-294.

Framework Update, 'Questions from Schools', **Framework Update**, 1, May 1992.

Framework Update, 'New developments in workplace assessment', **Framework Update**, Issue 6, April 1993.

Francke,L. **Berufsausbildung von A bis Z**, Nördlingen 1986.

Franke,H. **Brennpunkt Arbeitsmarkt. Lehrbuch für politische und betriebliche Praxis**, Starnberg-Percha 1992.

Frankfurter Rundschau, "'Man braucht Runde Tische für die Bildungspolitik'", *Frankfurter Rundschau*, 9 February 1995.

Friedeburg, L. von **Bildungsreform in Deutschland. Geschichte und gesellschaftlicher Widerspruch**, Frankfurt 1992.

Führ, C. 'Die unrealistische Wendung', *Zeitschrift für erziehungs- und sozialwissenschaftliche Forschung*, 2, 1985, Heft 2, pp.259-281.

Führ, C. **Schools and Institutions of Higher Education in the Federal Republic of Germany**, Bonn 1989.

Fuhr, H. 'Der Einfluss der Normen der Reihe ISO 9000 auf Qualitätssicherungssysteme bei der Aus- und Weiterbildung', *DIN-Mitteilungen*, 72, 6, 1993, pp.327-331.

Fulbrook, M. **The Fontana History of Germany 1918-1990. The Divided Nation**, London 1991.

Gardner, M. 'German engineering falls behind competition', *The Times Higher Education Supplement*, 25 February 1994.

Gärtner, D., Krischok, D. & Stolze, K. 'Verfahrensmodell zur Entwicklung von Ausbildungsordnungen - Fallstudien', *Berufsbildung in Wissenschaft und Praxis*, 10, 6, 1981, pp.1-5.

Geissler, K. 'Das Duale System der industriellen Berufsausbildung hat keine Zukunft', *Leviathan*, 19, H, I, 1991, pp.68-77.

Geissler, K. 'Hauptinhalte der Diskussion zum Kutscha-Vortrag', in Buttler, F., Czycholl, R. & Pütz, H. (eds.), **Modernisierung beruflicher Bildung vor den Ansprüchen von Vereinheitlichung und Differenzierung**, Nuremberg 1993, pp.57-62.

Gibbs, C. & Aitken, G. '**Standards in Qualifications for Teacher Education-Research Implications and Possibilities**', Paper presented to the Annual Conference of the New Zealand Association for Research in Education, Massey University, Palmerston North, 7-10 December, 1995.

Gilling, D. 'Contracting and Accountability in the Education Sector', *Public Sector*, 18, 3, 1995, pp.2-6.

Ginsberg, M., Cooper, S., Raghu, R. & Zegarra, H. 'National and World-System Explanations of Educational Reform', *Comparative Education Review*, 34, November 1990, pp.474-499.

Gipps,C. **Beyond Testing: Towards a Theory of Educational Assessment**, London 1994.

Gipps,C. 'Reliability, Validity and Manageability in Large-Scale Performance Assessment', in Torrance,H. (ed.), **Evaluating authentic assessment**, Buckingham 1995, pp.105-123.

Goetz,K. 'National Governance and European Integration: Intergovernmental Relations in Germany', **Journal of Common Market Studies**, 33, 1, 1995, pp.91-116.

Goff,P. 'Message from the Minister of Employment', **The Training Bulletin**, 3, 2, 1987, p.2.

Goff,P. 'Towards competency', in Wagner,G (ed.), **Proceedings of the Towards Competency Seminar. A Seminar on Curriculum Development and Evaluation in Vocational Education in New Zealand**, Wellington 1988, pp.7-10.

Gonczi,A. 'An integrated competency approach to professional education and assessment: a consideration of arguments for and against', Paper presented to the National Assessment Research Forum, Sydney, April 1993a.

Gonczi,A. 'Integrated approaches to competency-based assessment', **Training Agenda**, 1, 2, 1993b, pp.9-11.

Gonczi,A., Hager,P. & Oliver,L. **Establishing Competency-based Standards in the Professions**, Canberra 1990.

Gordon,L. 'School choice and the social market: education reform in an era of increasing social and economic inequality', Paper presented to the NZARE Conference, Palmerston North, December 1995.

Gordon,L. & Snook,I. 'Education, 'Skills' and Technological Change: The Politics of the 'New Economy'', **New Zealand Journal of Industrial Relations**, 17, 1992, pp.85-94.

Görs,D. 'Berufsbildungsreform - eine Herausforderung der Gewerkschaften', **Die Deutsche Berufs- und Fachschule**, 71, Heft 10, 1975, pp.743-754.

Gottsleben,V. 'Weiterbildung als Gegenstand der Bildungspolitik', **Mitteilungen aus der Arbeitsmarkt- und Berufsforschung**, Schwerpunkttheft 'Berufliche Weiterbildung', 24, 2, 1991, pp.243-255.

Grace,G. 'Education: Commodity or Public Good?', an inaugural address, Wellington 1988.

Grace,G. 'The Crisis and Settlements of Education Policy', in Holland,M. & Boston,J. (eds.), **The Fourth Labour Government: Politics and Policy in New Zealand**. Second Edition, Auckland 1990, pp.165-191.

Gray,L. 'The Role of Training Providers in Manpower Planning', **The Vocational Aspect of Education**, 45, 3, 1993, pp.251-263.

Gray,W. & Orasanu,J. 'Transfer of cognitive skill', in Cormier,S. & Hagman,J. (eds.), **Transfer of learning. Contemporary research and applications**, London 1987, pp.183-215.

Green,A. 'The reform of post-16 education and training and the lessons from Europe', **Journal of Education Policy**, 6, 3, 1991, pp.327-339.

Greinert,W-D. 'Berufsbildungsreform - Liquidation oder Neubeginn?', **Die berufsbildende Schule**, 10, 1984, pp.571-582.

Greinert,W-D. 'Marktmodell - Schulmodell - duales System', **Die berufs bilden- de Schule**, 3, 1988, pp.145-156.

Greinert,W-D. 'Auf dem Wege zum Marktmodell? Bemerkungen zur herausziehenden Krise der dualen Berufsausbildung in der Bundesrepublik', in Horney,K. & Pätzold,G. (eds.), **Arbeit und Ausbildung. Wissenschaft und Politik**, Frankfurt 1990, pp.275-288.

Greinert,W-D. 'Hat das duale System der Berufsbildung seine Zukunft bereits hinter sich?', **Berufsbildung**, 46, 2, 1992, pp.69-72.

Greinert,W-D. 'Berufsausbildung und sozio-ökonomischer Wandel', **Zeitschrift für Pädagogik**, 40, 3, 1994a, pp.357-372.

Greinert,W-D. 'Die Berufsschule am Ende ihrer Entwicklung. Über die Grenzen eines pädagogischen Konzepts', **Die berufsbildende Schule**, 46, 12, 1994b, pp.389-395.

Greinert,W-D. 'Regelungsmuster der beruflichen Bildung: Tradition - Markt - Bürokratie', **Berufsbildung in Wissenschaft und Praxis**, 24, 5, 1995, pp.31-35.

Grint,K. **The Sociology of Work. An Introduction**, Cambridge 1992.

Grootings,P. 'From qualification to competence: what are we talking about?', **European Vocational Training Journal**, 1, 1, 1994, pp.5-7.

Habermas, J. **Legitimation Crisis**, London 1976.

Habermas, J. 'What does a Legitimation crisis mean today? Legitimation Problems in late Capitalism', in Connelly, W. (ed.), **Legitimacy and the State**, Oxford 1984, pp.134-155.

Hager, P. 'Is there a Cogent Philosophical Argument against Competency Standards?', **Australian Journal of Education**, 38, 1, 1994, pp.3-18.

Hager, P. '**Higher Education and Competencies**', Paper presented to the Global Competencies: Workplace Outcomes Conference, 28 February-3 March 1995, Sydney (Conference Papers, Stream 2: Implementation for Outcomes, pp.336-355).

Haines, L. **Our Education and Training Choices -Post Compulsory Education and Training in New Zealand**, Wellington 1988. Hall, C. 'Developments in academic audit in New Zealand universities', **New Zealand Annual Review of Education**, 2, 1992, pp.263-284.

Hall, C. **Obstacles to the Integration of University Qualifications and Courses into the National Qualifications Framework**, Wellington 1994a.

Hall, C. **Unit Standards and Related Matters: Some Observations and Reflections**, Wellington 1994b.

Hall, C. **Following Principles which accord with the National Qualifications Framework, but without Unit Standards**, Wellington 1995a.

Hall, C. 'NZQA's Approach to Standard Setting - A Dilemma?', **Alumninews**, 5, 3, Spring 1995b, pp.6-7.

Hall, C. '**University Qualifications and the New Zealand National Framework: Obstacles and a Way Forward**', in Peddie, R. & Tuck, B. (eds.), **Setting the Standards. The Assessment of Competence in National Qualifications**, Palmerston North 1995c, pp.154-176.

Hall, C. '**Blending Academic Standards with the New Zealand National Qualifications Framework: Lessons for Other Countries**', Paper presented to the Quality and Quality Assurance: Ideals versus Realities and the Way Forward in South African Higher Education Conference, University of the Orange Free State, Bloemfontein, 19-20 March 1996a.

Hall,C. 'What a learning outcome actually provides: Some comments on the TAG report', Unpublished paper (Version 2), Wellington, 11 June 1996b.

Hall,C. 'Blending academic standards with the New Zealand National Qualifications Framework: Lessons for other countries', in Strydom,A., Lategan,L. & Muller,A. (eds.), **Quality Assurance in South African Higher Education: National and International Perspectives**, Bloemfontein 1996c, pp.269-298.

Hall,I. **Technical and vocational education in New Zealand: policies, planning and administration**, Wellington 1983.

Hall,J. & Ludwig,U. 'German unification and the 'market adoption' hypothesis', **Cambridge Journal of Economics**, 19, 1995, pp.491-507.

Hall,W. **Review of Research. 1 Competency-based training and assessment**, Leabrook 1994. Ham,C. & Hill,M. **The Policy Process in the Modern Capitalist State**, Brighton 1985.

Hamilton,S.'Contrasting vocational education in the United States and West Germany: what a difference a system makes', in Rust,V., Silberman,H. & Weiner,M. (eds.), **Vocational Education: Germany and the United States**, Berkeley 1992, pp.185-198.

Hargreaves,A. 'The Crisis of Motivation and Assessment', in Hargreaves,A. and Reynolds,D. (eds.), **Education Policies: Controversies and Critiques**, Lewes 1989, pp.41-63.

Hargreaves,A. & Reynolds,D. **Educational Policies: Controversies and Critiques**, Lewes 1989.

Harré Hindmarch,J. 'Recognition of prior learning in a New Zealand university: an exploratory study', **New Zealand Journal of Adult Learning**, 20, 2, October 1992, pp.65-86.

Harré Hindmarch,J., Mackintosh,T., Sain,S.de (and a Steering Committee), **Recognition of Prior Learning: An Exploratory study in a New Zealand university**, Wellington 1992.

Harrison,N. 'Technical and Technological Education', in Bates,R.(ed.), **Prospects in New Zealand Education**, Auckland 1970, pp.134-143.

Hawe,E. 'Standards-Based Assessment and the New Zealand Draft Technology Curriculum', in Reddie,R. & Tuck,B. (eds.), **Setting the Standards. Issues in Assessment for National Qualifications**, Palmerston North 1995, pp.120-139.

Hawke, G. **Report of the Working Group on Post-Compulsory Education and Training**, Wellington 1988.

Hayes, C. 'Alternance: Its significance for the Development of Learning', in CEDEFOP, **Youth Unemployment and Alternance Training in the EEC**, Berlin 1981, pp.44-55.

Hayes, C. **Competence and Competition, Training and Education in the Federal Republic of Germany, the United States and Japan**, London 1984.

Hearnden, A. **Education, Culture and Politics in West-Germany**, Oxford 1976.

Hecker, U. 'Wege zur Externenprüfung. Eine Möglichkeit für **Erwerbstätige zum nachträglichen Erwerb eines Berufsabschlusses**', Working Paper 7, Research Project 1.505 BiBB, Berlin 1994.

Heckman, J., Roselius, R. & Smith, J. **U.S. Education and Training Policy: A Re-evaluation of the Underlying Assumptions Behind the "New Consensus"**, Chicago 1993.

Heidegger, G. & Rauner, F. **Berufe 2000. Berufliche Bildung für die industrielle Produktion der Zukunft**, Dusseldorf 1991a.

Heidegger, G., Jacobs, J., Martin, W., Mizdalski, R. & Rauner, F. **Berufsbilder 2000. Soziale Gestaltung von Arbeit, Technik und Bildung**, Dusseldorf 1991b.

Heine-Wiedenmann, D. **Ausbildungsforschung als angewandte Sozialwissenschaft. Strukturen und Prozesse einer Ressortforschungsinstitution zwischen Wissenschaft und politischer Entscheidungsfindung**, Berlin 1988.

Heinz, W. 'Berufliche Bildung zwischen Wertewandel und betrieblicher Modernisierung', in Liesering, S., Schober, K. & Tessaring, M. (eds.), **Die Zukunft der dualen Berufsausbildung**, Nuremberg, 1994, pp.110-123.

Helmreich, E. **Religious Education in German Schools**, Cambridge 1949.

Herbst, K-W. 'Befriedigendes Gesetz', in Nolte, H. & Röhrs, H-J. **Das Berufsbildungsgesetz**, Bad Heilbrunn 1979, pp.51-55.

Herman, J. 'What Research Tells Us About Good Assessment', **Educational Leadership**, May 1992, pp.74-78.

Hermanns,D. & Hansmann,D. 'Wer prüft die Prüfer?', *Die berufsbildende Schule*, 46, 12, 1994, pp.399-404.

Heylen Research Centre, **Public perceptions of qualifications and the role of the New Zealand Qualifications Authority**, Wellington 1992.

Hickox,M. & Moore,R. 'Education and Post-Fordism: A New Correspondence', in Brown,P. & Lauder,H. (eds.), **Education for Economic Survival. From Fordism to Post-Fordism?**, London 1992, pp.95-116.

Hilbert,J., Südmersen,H. & Weber,H. **Berufsbildungspolitik. Geschichte - Organisation - Neuordnung**, Opladen 1990.

Hilbert,J. & Völzkow,H. 'Das System der beruflichen Bildung in den 90er Jahren -Steuerungskapazitäten und Regulierungsbedarf', in Strikker,F. & Timmermanns,D. (eds.) **Berufsbildung und Arbeitsmarkt in den 90er Jahren**, Frankfurt 1990, pp.193-216.

Hinchcliff,J. '**Total Quality Management: A New Zealand Perspective**', Paper presented to AUSTAFE Conference, Canberra, 1993.

Hirsch,D. '**The other school choice: how oversubscribed schools select their students**', Paper presented in a public lecture at London Institute of Education, London 1995.

Hitchiner,S. '**When the district opts for quality management, what's a superintendent supposed to do?**', Paper presented to the Quality Assurance in Education & Training Conference, Wellington, 10-12 May 1994.

HMI (Her Majesty's Inspectorate), **Aspects of vocational education and training in the Federal Republic of Germany**, London 1991.

Holland,H. 'Die Aktualität von Rahmenlehrplänen und Ausbildungsordnungen', *Wirtschaft und Erziehung*, 39, 2, 1987, pp.41-44.

Holmes,B. **Comparative education: some considerations of method**, London 1981.

Hood,D. '**Standards Based Assessment in the National Qualifications Framework**', Unpublished NZQA paper, Wellington, November 1993.

Hood,D. 'New Zealand: The Development of a System of Qualifications and Certification Based on Skills', in OECD, **Assessing and Certifying Occupational Skills and Competences in Vocational Education and Training**, Paris 1996, pp.179-191.

Höpfner,H-D. 'Ein didaktisches Modell zur Entwicklung selbständigen Handelns', **Zeitschrift für Berufs-und Wirtschaftspädagogik**, 88, 5, 1992, pp.379-392.

Horney,W. *et al.* (eds.) **Pädagogisches Lexikon 1**, Erster Band A-J, Gütersloh 1970.

Horsburgh,M. & Robinson,C. '**Valuing Teaching**', Paper presented to the Quality Assurance in Education & Training Conference, Wellington, 10-12 May 1994.

Hotere,A. 'Schools seek framework review', **New Zealand Education Review**, 1, 1, 8 May 1996a, pp.1-2.

Hotere,A. 'Training for industry training', **New Zealand Education Review**, 1, 11, 17 July 1996b, pp.10-11.

Howieson,C. 'Parity of Academic and Vocational Awards: the experience of modularisation in Scotland', **European Journal of Education**, 28, 2, 1993, pp.177-187.

Huisinga,R. **Dienstleistungsgesellschaft und Strukturwandel der Ausbildung**, Frankfurt 1990.

Hunter Boyes,G. **Some Aspects of Part-Time Technical Education in Dunedin, New Zealand**, Unpublished thesis for a Certificate of Proficiency in Education, Dunedin: Otago University 1940.

Hurn,C. **The Limits and Possibilities of Schooling**, Boston 1985.

Hussain,A. 'The economy and the educational system in capitalist societies', **Economy and Society**, 5, 4, 1976, pp.413-434.

Hyland,T. 'Vocational Reconstruction and Dewey's Instrumentalism', **Oxford Review of Education**, 19, 1, 1993, pp.89-99.

Hyman,R. 'Flexible Specialization: Miracle or Myth?', in Hyman,R. & Streeck,W. (eds.), **New Technology and Industrial Relations**, Oxford 1988, pp.48-60.

IAB *kurzbericht*, 'Treuhand: Privatisierung vor Abschluss', IAB *kurzbericht*, 12, 1994, pp.1-6.

IGM (Industriegewerkschaft Metall), **Neue Berufe, anderes Lernen. Handbuch für die industriellen Metall-und Elektroberufe**, Frankfurt 1987.

IGM (Industriegewerkschaft Metall), **Eine neue Perspektive: Die integrierte Qualifikationsprüfung**, Frankfurt 1994.

IGM (Industriegewerkschaft Metall), **Prüfen, aber wie?**, Frankfurt 1995.

IHK (Industrie-und Handelskammer), **Prüfungspraxis. Handreichung für Mitglieder von Prüfungsausschüssen**, Bonn 1994.

IMD & The World Economic Forum, **World Competitiveness Report**, Lausanne 1992.

IMD & The World Economic Forum, **World Competitiveness Report**, Lausanne 1995.

Informationen zur politischen Bildung, Der Föderalismus in der Bundesrepublik Deutschland, **Informationen zur politischen Bildung**, No.204, 1992 (reprint).

Institute of Policy Studies Newsletter, 'The transition between education and employment', **Institute of Policy Studies Newsletter**, No.34, May 1993.

Irwin,M. **Curriculum, Assessment and Qualifications. An evaluation of current reforms**, Wellington 1994a.

Irwin,M. **'Cucumbers, stale bread and educational frameworks'**, Paper presented to the Secondary Principals' Association of New Zealand Conference, Wellington, 27-31 March 1994b.

Irwin,M. 'The mistake of trying to force education into one framework', **The Press**, 1 June 1995.

Irwin,M., Elley,W. & Hall,C. **Unit Standards in the National Qualifications Framework**, Wellington 1995.

Jackson,N. 'Reforming vocational education. Contradictions of competence', in Hall,W. (ed.), **What future for technical and vocational education and training?**, Adelaide 1993, pp.105-122.

Jansen,R. 'Das Qualifikationsprofil der Erwerbstätigen', in Jansen,R. & Stooss,F. (eds.), **Qualifikation und Erwerbssituation im geeinten Deutschland**, Berlin 1993a, pp.11-23.

Jansen,R. 'Ausbildung und Beschäftigung: Berufseinmündung und Wechselprozesse', in Jansen,R. & Stooss,F. (eds.), **Qualifikation und Erwerbssituation im geeinten Deutschland**, Berlin 1993b, pp.24-43.

Jansen,R. 'DDR-Ausbildungsstrukturen im Übergangsprozess', in BiBB, Berufliche bildung in den neuen Bundesländern, **Ergebnisse, Veröffentlichungen und Materialien aus dem BIBB**, January 1994, pp.7-10.

Jansen,R. & Stooss,F. **Qualifikation und Erwerbssituation im geeinten Deutschland**, Berlin and Bonn 1993.

Jencks C. *et al.* (1979) **Who Gets Ahead? The Determinants of Economic Success in America**, New York 1979.

Jentgens,B. **Berufsakademie oder Berufsbildung im Verbund: Bildungsgänge im dualen Ausbildungssystem?**, Frankfurt 1994.

Jentgens,B. 'Berufsakademie oder Berufsbildung im Verbund: Bildungsgänge im dualen Ausbildungssystem?', **Berufsbildung in Wissenschaft und Praxis**, 24, 3, 1995, pp.31-35.

Jesson,B. 'The Disintegration of a Labour Tradition: New Zealand Politics in the 1980s', **New Left Review**, 192, March/April 1992, pp.37-54.

Jesson,J. 'Curriculum in New Zealand: is it policy by dodgems?', **Educational Review**, 47, 2, 1995, pp.143-155.

Jessup,G. **Outcomes: NVQs and the Emerging Model of Education and Training**, London 1991.

Joas,H. & Kohli,M. **Der Zusammenbruch der DDR**, Frankfurt 1993.

Jones,J. **The Framework and Research on the Outcomes of Student Learning. A Report to the New Zealand Qualifications Authority**, Auckland 1994a.

Jones,J. 'The Qualities of Current Conceptions of "Quality" in Education: A Critical Theoretical Perspective', Paper presented to the Quality Assurance in Education & Training Conference, Wellington, 10-12 May 1994b.

Jones,P. **Comparative Education. Purpose and Method**, St.Lucia 1971.

Jones,R. 'Skill development -a vital ingredient of a quality workforce', Address to the Total Quality Management Institute, 28 August 1992, Auckland.

Jones,L. & Moore,R. 'Education, Competence and the Control of Expertise', **British Journal of Sociology of Education**, 14, 4, 1993, pp.385-397.

Jordan,S., Manning,S. & Weissflog,I. 'Germany', in Raffe,D. (ed.), **Modularisation in initial vocational training: recent developments in six European countries**, Edinburgh 1992, pp.4-8.

Kearns,P., Lundberg,D., Papadopoulos,G. & Wagner,G. Bridging the Tasman. **Report of a Comparative Study of the Australian and New Zealand Vocational Education and Training Systems**, Adelaide 1993.

Keir,R. 'Vocational training in a technical age', Paper (#31) presented to the Industrial Development Conference, Wellington, June 1960, pp.1-5.

Kell,A. 'Das Berechtigungssystem zwischen Bildungs- und Beschäftigungssystem', in Blankertz,H. *et al.* (eds.), **Enzyklopädie Erziehungswissenschaft**, Band 9.1, Sekundarstufe II - Jugendbildung zwischen Schule und Beruf, Stuttgart 1982, pp.289-320.

Keller,B. 'The German Version of Deregulation - And Beyond', **Relations industrielles**, 49, 2, 1994, pp.251-278.

Kelsey,J. **The New Zealand Experiment. A World Model for Structural Adjustment?**, Auckland 1995.

Kern,H. & Schumann,M. **Das Ende der Arbeitsteilung? Rationalisierung in der industriellen Produktion**, Munich 1984.

Kerr,M. 'Skill New Zealand: Strategy For A Bright Future', **People and Performance**, September 1994, pp.35-37.

Keune,S. & Zielke,D. 'Individualisierung und Binnendifferenzierung: eine Perspektive für das duale System?', **Berufsbildung in Wissenschaft und Praxis**, 21, 1, 1992, pp.32-37.

King,K. 'Technical and Vocational Education and Training in an International Context', **The Vocational Aspect of Education**, 45, 3, 1993, pp.201-216.

Kingsland, A. & Eng, C. **'Defining, Developing and Assessing Higher Order Competencies: Focus on Learning Outcomes in Higher Education'**, Paper presented to the After Competence: The Future of Post-Compulsory Education and Training International Conference, Brisbane, 1-3 December 1993, (Conference papers, Volume 1, pp.193-200).

Kirby, R. **Apprenticeships in New Zealand, its development, present organisation, and administration**, Unpublished thesis for a Master in Education degree, Wellington: Victoria University College 1956.

Klems, W. & Vandeven, L. **'Ergebnisse der Diskussion'**, in Liesering, S., Schober, K. & Tessaring, M. **Die Zukunft der dualen Berufsausbildung**, Nuremberg 1994, pp.124-131.

Kloas, P-W. **'Go West? - Eine Studie zu den beruflichen Plänen junger Erwachsener in den neuen Bundesländern'**, **Berufsbildung in Wissenschaft und Praxis**, 22, 1993, 2, pp.8-11.

Kloas, P-W. **'10 Thesen zur Modernisierungs- und Differenzierungsfähigkeit des dualen Berufsausbildungssystems'** in Liesering, S., Schober, K. & Tessaring, M. (eds.), **Die Zukunft der dualen Berufsausbildung**, Nuremberg, 1994, pp.136-142.

Kloss, G. (ed.), **Education Policy in the Federal Republic of Germany, 1969-1984**, Manchester 1984.

KMK (Kultusministerkonferenz), **Standing Conference of the Ministers of Education and Cultural Affairs of the Länder of the Federal Republic of Germany**, Bonn 1992a.

KMK (Kultusministerkonferenz), **Vereinbarung über den Abschluss der Berufsschule**, Bonn 1992b.

KMK (Kultusministerkonferenz), **Erklärung der Kultusministerkonferenz über Möglichkeiten der Ausgestaltung der Ausbildungsabschlussprüfung als gemeinsame Abschlussprüfung in der dualen Berufsausbildung**, decision of the KMK of 26. 6. 1992, Bonn 1993.

KMK (Kultusministerkonferenz), **The Education System in the Federal Republic of Germany**, Bonn 1994.

KMK (Kultusministerkonferenz), 'Erklärung der KMK "Zu Fragen der Gleichwertigkeit von allgemeiner und beruflicher Bildung" (Beschluss der Kultusministerkonferenz vom 02.12.1994), in Gleichwertigkeit Beruflicher und Allgemeiner Bildung. Hochschulezugang für Berufserfahrene -Stellungnahme und Vorschläge -, **Ergebnisse, Veröffentlichungen und Materialien aus dem BIBB**, Berlin, January 1995a, pp.87-89.

KMK (Kultusministerkonferenz), 'Zugang zu den Hochschulen für beruflich qualifizierte Bewerber ohne schulische Hochschulzugangsberechtigung', in Gleichwertigkeit beruflicher und allgemeiner Bildung. Hochschulzugang für Berufserfahrene. -Stellungnahme und Vorschläge -, **Ergebnisse, Veröffentlichungen und Materialien aus dem BiBB**, Berlin 1995b, pp.91-127.

Knox,G. 'Quality as the Learner Sees It', Paper presented to the Quality Assurance in Education & Training Conference, Wellington, 10-12 May 1994.

Koch,R. 'Pedagogical Objectives and the Organisation of Alternating Learning at School and at Work', in OECD, Apprenticeship: Which Way Forward?, Paris 1994, pp.121-126.

Koch,R. & Reuling,J. (eds.) **Modernisierung, Regulierung und Anpassungsfähigkeit des Berufsausbildungssystems der Bundesrepublik Deutschlands**, Berlin 1994.

Kogan,M. **Educational Policy-Making**, London 1975.

Kohl,H. 'Bildungspolitik für den Standort Deutschland', **Zur Verantwortung Erziehen. Bildung - Schlüssel und Zukunft**, Paper presented to the Education Policy Congress of the CDU, Wiesbaden, 4-5 March 1993, pp.7-16.

Kolinsky,E. 'Exodus to the private realm', **The Times Higher Education Supplement**, 29 January 1993.

Koopman-Boyden,G. 'Social Policy: Has There Been One?', in Holland,M. & Boston,J. (eds.), **The Fourth Labour Government. Politics and Policy in New Zealand**, Auckland 1992, pp.213-231.

Körber-Weik,M. 'Konjunkturkrise oder Strukturkrise?', in Wehling,H-G. (ed.), **Standort Deutschland**, Stuttgart 1994, pp.9-33.

Kreeft,H. 'Examinations in Europe: Three Major Streams', in Luijten,A. (ed.), **Issues in public examinations**, Utrecht 1991, pp.101-110.

Krekel-Eiben,E. & Ulrich,J. 'Ausbildung und Berufschancen in den neuen Bundesländern: Fazite aus der Sicht ostdeutscher Jugendlichen', in BiBB, Berufliche bildung in den neuen Bundesländern, **Ergebnisse, Veröffentlichungen und Materialien aus dem BIBB**, January 1994, pp.25-26.

Kroyman,I. & Lübke,S. **Berufliche Bildung in den neuen Bundesländern**, Cologne 1992.

Kruse,W. & Paul-Kohlhoff,A. 'Ein neues Berufsbildungsgesetz?', **Recht der Jugend und des Bildungswesens**, 38, 1990, pp.334-341.

Kuhn,D. "'Duales Ausbildungssystem ohne Alternative". 25 Jahre IHK-Bildungshaus Grunbach', **Industrie Meister**, 9, September 1994, pp.32-33.

Kultusministerium des Landes Nordrhein-Westfalen, **Die Sekundarstufe II**, Dusseldorf 1993.

Kutscha,G. 'Das System der Berufsausbildung', in Blankertz,H. *et al.* (eds.) **Enzyklopädie Erziehungswissenschaft**, Band 9.1 -Sekundarstufe II-Jugendbildung Zwischen Schule und Beruf, Stuttgart 1982, pp.203-226.

Kutscha,G. 'Öffentlichkeit, Systematisierung, Selektivität - zur Scheinautonomie des Berufsbildungssystems, in Harney,K. & Pätzold,G. (eds.) **Arbeit und Ausbildung. Wissenschaft und Politik**, Frankfurt 1990, pp.289-304.

Kutscha,G. 'Das Duale System der Berufsausbildung in der Bundesrepublik Deutschland - ein auslaufendes Modell?', **Die berufsbildende Schule**, 44, 3, 1992a, pp.145-156.

Kutscha,G. '„Entberuflichung“ und „Neue Beruflichkeit“ -Thesen und Aspekte zur Modernisierung der Berufsbildung und ihrer Theorie', **Zeitschrift für Berufs- und Wirtschaftspädagogik**, 88, 7, 1992b, pp.535-548.

Kutscha,G. 'Modernisierung der Berufsbildung im Spannungsfeld von Systemdifferenzierung und Koordination', in Buttler,F., Czycholl,R. & Pütz,H. (eds.), **Modernisierung beruflicher Bildung vor den Ansprüchen von Vereinheitlichung und Differenzierung**, Nuremberg 1993, pp.40-56.

Kutscha,G. **Integriertes Lernen in schulischen und ausserschulischen Bildungsgängen nach Abschluss der Vollzeitschulpflicht. Ein Überblick über Entwicklungen und Konzepte in der Bundesrepublik Deutschland**, Duisburg 1994.

Laermann,K-H. 'Aktuelle Fragen der Berufsbildungspolitik', **Wirtschaft und Berufs-Erziehung**, 46, 7, 1994, pp.199-206.

Lampert,H. **Die Wirtschafts-und Sozialordnung der Bundesrepublik Deutschland**, Munich 1992.

Lane,C. 'Capitalism or culture? A comparative analysis of the position in the labour process and labour market of lower white-collar workers in the financial services sector of Britain and the Federal Republic of Germany', **Work, Employment & Society**, 1, 1, 1987, pp.57-83.

Lane,C. **Management and Labour in Europe**, Aldershot 1989.

Lane,C. 'Vocational training and new production concepts in Germany: some lessons for Britain', **Industrial Relations Journal**, 21, 4, 1990, pp.247-259.

Lane,C. 'Industrial Reorganization in Europe: Patterns of Convergence and Divergence in Germany, France and Britain', **Work, Employment & Society**, 5, 4, 1991, pp.515-539.

Lanfer,H. 'Die Rolle der Berufsschule in der neuen Berufsbildung', in Meyer-Dohm,P. & Schneider,P. (eds.), **Berufliche Bildung im lernenden Unternehmen. Neue Wege zur beruflichen Qualifizierung**, Stuttgart 1991.

Lange,D. **Tomorrow's Schools. The Reform of Education Administration in New Zealand**, Wellington 1988.

Lange,G. 'Dem Dualen System gehen die Lehrer aus', **Süddeutsche Zeitung**, 5/6 August 1995.

Lankshear,C. & Levett,A. **The Framing of Life-Long Learning. A Report to the New Zealand Qualifications Authority. Stages 1 and 2**, Wellington 1992.

La Trobe,W., Keys,G. & Kirk,A. **Studies in apprenticeship**, Wellington 1939.

Lauder,H. 'The New Right and Educational Policy in New Zealand', **New Zealand Journal of Educational Studies**, 22, 1, 1987, pp.3-23.

Lauder,H. 'Education, Democracy and the Economy', **British Journal of Sociology of Education**, 12, 4, 1991, pp.417-431.

Lauder,H., Middleton,S., Boston,J. & Wylie,C. 'The Third Wave: a critique of the New Zealand Treasury's Report on Education', **New Zealand Journal of Educational Studies**, 23, 1, 1988, pp.15-33.

Lauder,H., Wylie,C. & Parker-Taunoa,R. 'Citizens or Consumers? The Politics of Educational Reform: An Introduction', in Lauder,H. & Wylie,C. (eds.), **Towards Successful Schooling**, London 1990, pp.1-13.

Lauder,H., Hughes,D., Watson,S., Simiyu,I., Strathdee,R. & Waslander,S. **Trading in futures: the nature of choice in educational markets in New Zealand** (The Smithfield Project Phase One; Third report to the Ministry of Education), Wellington 1995.

Lauglo,J. **Vocational training: analysis of policy and modes. Case studies of Sweden, Germany and Japan**, Paris 1993.

Lauglo,J. & Lillis,K. "'Vocationalization" in International Perspective', in Lauglo,J. & Lillis,K. (eds.), **Vocationalizing Education. An Historical Perspective**, Oxford 1988, pp.3-26.

Laur-Ernst,U. "'Schlüsselqualifikationen" - Perspektive oder Sackgasse? Einige Überlegungen zur (neuen) Qualität beruflicher Bildung', in Degen,U., Seyfried,B. & Wordelmann,P. (eds.), **Qualitätsverbesserungen in der betrieblichen Ausbildungsgestaltung. Fragen und Antworten**, Berlin 1991, pp.121-136.

Laur-Ernst,U. **Vocational Training à la European**, (BiBB paper), Berlin n.d.

Lauterbach,U. 'History and development of apprenticeship', in **International Encyclopaedia of Education**, 2nd ed., Oxford 1994.

Lauterbach,U. **The Dual System in the Federal Republic of Germany (draft)**, Baden Baden n.d.

Lawson,R. **Reform of the West German School System, 1945-1962**, Ann Arbor 1965.

Lawton,S. 'Why restructure?: an international survey of the roots of reform', **Journal of Education Policy**, 7, 2, 1993, pp.139-154.

Laxon,A. 'Universities attack new system as inflexible, threaten to set examinations', **The New Zealand Herald**, 4 September 1995.

Learn, 'Paving The Way For Tomorrow's Learners', *Learn*, 1, April/May 1994a, pp.7-8.

Learn, 'Sweet Harmony?', *Learn*, 3, December 1994b, pp.8-13.

Learn, 'Light, Camera, Action Group', *Learn*, 4, April 1995a, p.25.

Learn, 'Apprenticeship Figures Up 18', *Learn*, 6, October 1995b, p.4.

Learn, 'At the Crossroads', *Learn*, 6, October 1995c, pp.20-22.

Learn, 'New senior school qualifications proposed', *Learn*, 8, April 1996a, pp.8-9.

Learn, 'Tech prep success provides inspiration for new qualifications', *Learn*, 8, April 1996b, p.10.

Lee,B. 'The development of technical institutes in New Zealand', *The New Zealand Journal of Public Administration*, 32, 2, 1970, pp.1-31.

Lee,H. 'The New Zealand School Certificate: The Collapse of a Terminal Examination 1946-1989', Paper presented to the 11th Annual Conference of the New Zealand Association of Research in Education, Wellington, 30 November-3 December 1989.

Lee,G. & Lee,H. *Examinations and the New Zealand School Curriculum: Past and Present*, Palmerston North 1992.

Leffers,J. 'Vom Meister zum Magister', *Die Woche*, 17 March 1995, p.34.

Lehnigk,W. 'Übergangsprobleme im Berufsbildungssystem am Beispiel des Kreises Senftenberg', in Seyfried,B. & Wordelmann,P. (eds.), *Neue Länder - Neue Berufsausbildung?*, Berlin 1992, pp.65-86.

Lennartz,D. 'Schlüsselqualifikationen und berufliche Bildung. 10 Thesen zur Reichweite der neuen betrieblichen Ausbildungskonzepte', in Reetz,L. & Reitmann,T. (eds.), *Schlüsselqualifikationen*, Hamburg 1990a, pp.206-210.

Lennartz,D. 'Thesen zu Schlüsselqualifikationen und Qualifizierungskonzepte', in Laur-Ernst,U. (ed.), *Neue Fabriksstrukturen - veränderte Qualifikationen*, Berlin 1990b, pp.103-108.

Lennartz,D. 'Evaluierung als integraler Bestandteil wissenschaftlicher Ordnungsarbeit - Ein Weg zur Dynamisierung von Ausbildungsordnungen', **Berufsbildung in Wissenschaft und Praxis**, 21, 5, 1992, pp.7-12.

Lennox,B. 'The structure, function and role of the New Zealand Qualifications Authority', Research paper for Master of Education degree, Victoria University of Wellington, October 1993.

Lennox,B. 'School assessment for the National Qualifications Framework', Research paper for Master of Education degree, Victoria University of Wellington, January 1995.

Levett,A. & Lankshear,C. 'Ironies of educational reform in New Zealand', Paper presented to the 1992 AARE/NZARE Joint Conference, Deakin University, Geelong, Australia, November 1992.

Levick,G. 'A learning outcomes approach: the New Zealand experience', Paper presented to the After Competence: The future of Post-Compulsory Education and Training International Conference, Brisbane, 1-3 December 1993.

Lewis,T. 'Bridging the Liberal/Vocational Divide: an examination of recent British and American versions of an old debate', **Oxford Review of Education**, 20, 2, 1994, pp.199-217.

Lex,T. 'Berufliche Fehlqualifizierung? Stationen des Erwerbsverlaufs junger Fachkräfte mit beruflicher Schwierigkeiten', in Westhoff,G. (ed.), **Übergänge von der Ausbildung in den Beruf. Die Situation an der zweite Schwelle in der Mitte der neunziger Jahre**, Berlin 1995, pp.205-217.

Leysen,A.'Privatization: east Germany', **Eastern European Economics**, 30, 1, 1991, p.40.

Liesering,S., Schober,K. & Tessaring,M. **Die Zukunft der dualen Berufsausbildung**, Nuremberg 1994.

Lipset,S. 'Social Conflict, Legitimacy, and Democracy', in Connolly,W. (ed.), **Legitimacy and the State**, Oxford 1984, pp.88-103.

Lipsmeier,A. 'Die Empfehlungen des Bildungsrat zur Verbesserung der Lehrlingsausbildung in der Diskussion', **Berufliche Bildung**, 10, 1969, pp.241-256.

Lipsmeier,A. 'Ganzheitlichkeit als berufspädagogische Kategorie. Pädagogische und betriebliche Illusionen und Realitäten', **Zeitschrift für Berufs- und Wirtschaftspädagogik**, 85, 2, 1989, pp.137-151.

Lipsmeier,A. 'Differenzierung der Berufsausbildung -Tabu durchbrochen!', **Zeitschrift für Berufs- und Wirtschaftspädagogik**, 87, 7, 1991, pp.531-532.

Lipsmeier,A. 'Der historische Kontext des Berufsausbildungssystems: Wichtige Reformen und Berufsbildungspolitische Diskussionen seit dem Berufsbildungsgesetz, in Koch,R. & Reuling,J. (eds.) **Modernisierung, Regulierung und Anpassungsfähigkeit des Berufsausbildungssystems der Bundesrepublik Deutschlands**, Berlin 1994, pp.13-36.

Lipsmeier,A. & Münk,D. **Die Berufsbildungspolitik der Gemeinschaft für die 90er Jahre**, Bonn 1994.

Lisop,I. 'Das Duale System -Realität und zukünftige Entwicklung im Verhältnis zur Weiterbildung', in Deutscher Bundestag, **Zwischenbericht der Enquete-Kommission: Zukünftige Bildungspolitik - Bildung 2000**, Bonn 1989.

Livingstone,I. 'Monitoring national standards', in Walberg,H. & Härtel,G. (eds.), **International Encyclopaedia of Educational Evaluation**, London 1990, pp.435-440.

Lübke,S. 'Weiterbildung -eine ungelöste Aufgabe für Bundesgesetzgeber und Sozialparteien', in DGB, **Fortbildungsberufe stärken -neue Weiterbildungs-anforderungen umsetzen**, Dusseldorf 1992, pp.6-11.

Lübke,S. 'Attraktivität der beruflichen Bildung steigern!', in Liesering,S., Schober,K. & Tessaring,M. (eds.), **Die Zukunft der dualen Berufsausbildung**, Nuremberg 1994, pp.143-157.

Lüdtke,A. 'Restauration oder Neubeginn?', **Sozialwissenschaftliche Informationen**, Heft 6, 1977, p.97.

Lukas,K. **The Educational System of the Former German Democratic Republic. A Special Report**, Washington 1991.

Lundberg,D. **Decentralization of public vocational training in New Zealand and two Australian states**, Geneva 1994.

Lutz,B. 'Herausforderungen an eine zukunftsorientierte Berufsbildungspolitik', in BiBB, **Die Rolle der beruflichen Bildung und Berufsbildungsforschung im internationalen Vergleich**, 1991 Berlin, pp.27-36.

Lythe,D. **Internationalisation of small and medium enterprises and human resources development - A progress report on the New Zealand experience**, Wellington 1995.

Mager,R. **Preparing Instructional Objectives**, Fearon 1968.

Maglen,L. 'Challenging the Human Capital Orthodoxy: The Education-Productivity Link Re-examined', **The Economic Record**, December 1990, pp.281-294.

Male,A. '**Quality Assurance and Academic Audit**', NZQA paper, Wellington 1993.

Male,A. '**Quality in Schools: Processes and Disciplines Associated with Operating Quality Systems in Schools**', Paper presented to the Quality Assurance in Education & Training Conference, Wellington, 10-12 May 1994.

Marsden,D. 'Industrial change, 'competencies', and labour markets', **European Vocational Training Journal**, 1, 1, 1994, pp.15-22.

Marsden,D. & Ryan,P. 'Initial Training, Labour Market Structure and Public Policy: Intermediate Skills in British and German Industries', in Ryan,P. (ed.), **International Comparisons of Vocational Education and Training for Intermediate Skills**, London 1991, pp.251-285.

Martin,J. 'Remaking the State Services', in Holland,M. & Boston,J. (eds.), **The Fourth Labour Government. Politics and Policy in New Zealand**, Auckland 1992, pp.123-139.

Martin,Y. 'Private school aims at teacher training', **Sunday Star-Times**, 28 July 1996.

Mason,H. **Education Today and Tomorrow**, Wellington 1944.

Matheson,D. 'Separate Maori qualifications framework called for', **New Zealand Education Review**, 1, 13, 2-9 August 1996, p.1.

Maurice,M., Sellier,F. & Silvestre,F. **The Social Foundations of Industrial Power. A Comparison of France and Germany**, Cambridge 1986.

Max Planck Institute for Human Development and Education, **Between Elite and Mass Education**, Albany 1983.

McCulloch, G. 'The Ideology of Educational Reform: An Historical Perspective, in Middleton, S., Codd, J. & Jones, A. (eds.), **New Zealand Education Policy Today**, Wellington 1990, pp.53-67.

McDerment, W. 'Industrial Certification: Lessons from Europe', in Oliveira, J. (ed.), **Occupational Standards: International Perspectives**, Columbus 1995.

McKenzie, D., Lee, G. & Lee, H. 'The transformation of the New Zealand technical high school', **Delta Research Monograph**, No.10, Palmerston North 1990.

McKenzie, J. 'Apprenticeship Policy', Paper from the Secretary of Labour to the Minister of Employment, 17 December 1987, Wellington.

McLean, M. **The Promise and Perils of Educational Comparison**, London 1992.

McNeil, D. 'Facsimile message to P.Kappert, dated 12 June 1997, from the Scottish Qualifications Authority, containing data from the Scottish Abstract of Statistics 1990 Edition No.19', Edinburgh 1997.

McPeck, J. **Critical thinking and education**, New York 1981.

McQueen, H. 'Apprenticeship in New Zealand', Paper(#30) presented to the Industrial Development Conference, Wellington, June 1960, pp.1-3.

Mertens, D. 'Schlüsselqualifikationen. Thesen zur Schulung für eine moderne Gesellschaft', **Mitteilungen aus der Arbeitsmarkt- und Berufsforschung**, 7, 1, 1974, pp.36-43.

Mertens, D. & Parmentier, K. 'Zwei Schwelle - acht Problembereiche. Grundzüge eines Diskussions- und Aktionsrahmens zu den Beziehungen zwischen Bildungs- und Beschäftigungssystem, in Mertens, D. (ed.), **Konzepte der Arbeitsmarkt- und Berufsforschung**, Nuremberg 1988, pp.467-512.

Methven, P. **Levels Descriptors. A Guide for advisory groups and writers**, NZQA internal document, Wellington 1994.

Methven, P. **Levels Descriptors. A Guide for advisory groups and writers**, NZQA internal document, Wellington 1995.

Ministerial Consultative Group, **Funding growth in tertiary education and training**, Wellington 1994.

Ministerial Tertiary Lead Group, **A single harmonised Qualifications Framework**, Wellington 1994.

Ministerial Working Party, **The establishment of the National Education Qualifications Authority: report of the Phase I Working Party** (draft report), Wellington 1989.

Ministry of Education, **Learning for Life. Education and Training Beyond the Age of Fifteen**, Wellington 1989a.

Ministry of Education, **Learning for Life: Two. Education and Training Beyond the Age of Fifteen**, Wellington 1989b.

Ministry of Education, **Introducing the Education Family**, Wellington 1990a.

Ministry of Education, **Today's Schools. A Review of the Education Reform Implementation Process**, Wellington 1990b.

Ministry of Education, **Tomorrow's Standards. The Report of the Ministerial Working Party on Assessment for Better Learning**, Wellington 1990c.

Ministry of Education, **Report of the Ministry of Education for the twelve months from 1 July 1990 to 30 June 1991, Appendix to the Journal of the House of Representatives**, E.1, 1991a.

Ministry of Education, **The EFTS Funding System For Tertiary Institutions**, Wellington 1991b.

Ministry of Education, **Report of the Interdepartmental Working Party on Skills Training**, Wellington 1991c.

Ministry of Education, **Devolution in the New Zealand Education System**, Wellington 1992.

Ministry of Education, **Three Years On. The New Zealand Education Reforms 1989 to 1992**, Wellington 1993a.

Ministry of Education, **Education in New Zealand. A Briefing for the Incoming Government**, Wellington, 1993b.

Ministry of Education, **Education for the 21st Century**, Wellington 1993c.

Ministry of Education, **The New Zealand Curriculum Framework**, Wellington 1993d.

Ministry of Education, **Education for the 21st Century**, Wellington 1994a.

Ministry of Education, **Corporate Plan 1994/5**, Wellington 1994b.

Ministry of Education, **Assessment Policy to Practice**, Wellington 1994c.

Ministry of Education, '1995 School Leavers', **Education Statistics News-Sheet**, 6, 5, June 1996, p.1.

Misko, J. **Transfer. Using learning in new contexts**, Adelaide 1995.

Mitchell, D. with McGee, C., Moltzen, R. & Oliver, D. **Hear Our Voices. Final Report of Monitoring Today's Schools Research Project**, Hamilton 1993.

Mitchell, F. (ed.), **New Zealand education today**, Wellington 1968.

Mitter, W. 'Educational Reform in West and East Germany in European Perspective', **Oxford Review of Education**, 16, 3, 1990, pp.333-341.

Mitter, W. 'Education in Present-Day Germany: some considerations as mirrored in comparative education (July 1991)', **Compare**, 22, 1, 1992, pp.53-67.

Mönnich, I. & Witzel, A. 'Arbeitsmarkt und Berufsverläufe junger Erwachsene. Ein Zwischenergebnis', **Zeitschrift für Sozialisationsforschung und Erziehungssoziologie**, 14, 3, 1994, pp.262-277.

Moore-Rinvolucris, M. **Education in East Germany**, Hamden 1973.

Moorhouse, R. 'The New Zealand Experience. Restructuring vocational qualifications', **Canadian Vocational Journal**, 29, 2, 1993/4, pp.21-26.

Moorhouse, R. & Nicholson, D. 'Learning partnerships -the challenge for education in the senior secondary school', Paper presented to the Learning to Learn seminar, Wellington, 7 March 1994, pp.1-10.

MRL Research Group, **Public Awareness And Attitudes To Skill New Zealand, The National Qualifications Framework and the National Certificate**, Wellington 1996.

Müller,A. 'Berufsbildungsgesetz verfassungswidrig', **Die berufsbildende Schule**, 46, 2, 1994, pp.64-66.

Münch,J. **Vocational training in the Federal Republic of Germany**, Berlin 1991.

Münch,J. **Das Berufsbildungssystem in der Bundesrepublik Deutschland**, Brussels 1994.

Murphy,M. 'Competency-based training: COSTAC working party report', In proceedings of the conference 'Assessment and standards in vocational education and training', Adelaide 1990, pp.100-118.

Murphy,R. **Social Closure: The Theory of Monopolization and Exclusion**, Oxford 1988.

Murray,D. **The history of the regulation of apprenticeship in New Zealand and its bearings on education**, Unpublished thesis for Honours in Education, Dunedin: Otago University 1936.

Myers,B. **Industry Training in New Zealand in the 1990s**, Unpublished research essay for a Master of Commerce degree, Auckland: Auckland University, 1996.

Nash,R. 'The Treasury on Education: taking a long spoon...', **New Zealand Journal of Educational Studies**, 23, 1, 1988, pp.35-43.

Nash,R. 'Bourdieu on Education and Social and Cultural Reproduction', **British Journal of Sociology of Education**, 11, 4, 1990, pp.431-447.

National Council for Vocational Qualifications (NCVQ), 'TV Programme and Report Damagingly Inaccurate' (news release), 7 January 1994.

National Party, **A Nation at Risk** (Election Manifesto), Wellington 1987.

Navaratnam,K. 'Quality Process Analysis (QPA): Applying a Service Industry Experience to Vocational Education', Paper presented to the Quality Assurance in Education & Training Conference, Wellington, 10-12 May 1994.

Neave,G. & Vught,F.van 'Conclusion', in Neave,G. & Vught,F.van (eds.), **Prometheus bound: the changing relationship between government and higher education in western Europe**, Oxford 1991, pp.239-255.

Nelson Evening Mail, 'High schools may suffer - professor', **Nelson Evening Mail**, 27 August 1993.

Neubert, R. & Steinborn, H-C. 'Personalqualifizierung im Aufschwung: Das Programm PQO', **Berufsbildung in Wissenschaft und Praxis**, 24, 4, 1994, pp.11-18.

New Zealand Council of Trade Unions (NZCTU), **Building Better Skills. Industry Training: Skills Formation to Take New Zealand Into The 21st Century As A High Skill, High Wage Economy**, Wellington n.d.

New Zealand Education Review, 'Dual framework would undermine confidence says Creech', **New Zealand Education Review**, 1, 3, 22 May 1996a, p.7.

New Zealand Education Review, 'More leave school with no qualifications', **New Zealand Education Review**, 1, 10, 10 July 1996b, p.6.

New Zealand Employers' Federation (NZEf), **Tertiary education in New Zealand. Reform of vocational education and training system**, Submissions of NZEF, 1 June 1987, Wellington 1987a.

New Zealand Employers' Federation (NZEf), **Proposed National Validation Body**, paper presented to the 6 August 1987 meeting, Wellington 1987b.

New Zealand Employers' Federation (NZEf), **Reponse to the Hawke Report on Post-Compulsory Education and Training 1988**, 26 October 1988, Wellington.

New Zealand Employers' Federation (NZEf), **The Training Challenge. A New Training Strategy For The '90s**, Wellington 1990.

New Zealand Employers' Federation (NZEf), **Supplementary Submission on Funding Growth in Tertiary Education and Training**, 25 February 1994a, Wellington.

New Zealand Employers' Federation (NZEf), **Essential Skills and Generic Skills in the National Qualifications Framework, Response to NZQA Consultation Document**, Wellington 1994b.

New Zealand Employers' Federation (NZEf), **Submission to the Prime Ministerial Task Force on Employment**, Wellington 1994c.

New Zealand Employers' Federation, New Zealand Council for Trade Unions, and the Association of Polytechnics in New Zealand, **Joint Submission on the Picot Report to the Minister of Education**, 20 June 1988, Wellington.

New Zealand Engineering Union (NZEU), **Apprenticeship Reform**. Report of the National Secretary to National Council, 1-3 March 1988, Wellington.

New Zealand Government, **The Master and Apprentices Act**, Wellington 1865.

New Zealand Government, **The Government Apprentices Act**, Wellington 1875.

New Zealand Government, **The Master and Apprentices Act**, Wellington 1908.

New Zealand Government, **Apprentices Act**, Wellington 1923.

New Zealand Government, **Apprentices Act**, Wellington 1948a.

New Zealand Government, **Trades Certification Act**, Wellington 1948b.

New Zealand Government, **Vocational Training Council Act**, 1968.

New Zealand Government, **Industrial Training Levies Act**, Wellington 1978.

New Zealand Government, **Apprentices Act**, Wellington 1983.

New Zealand Government, **Education Act**, Wellington 1989.

New Zealand Government, **Education Amendment Act**, Wellington 1990.

New Zealand Government, **Employment Contracts Act**, Wellington 1991a.

New Zealand Government, **Industry Training Bill**, Wellington 1991b.

New Zealand Government, **Industry Training Act**, Wellington 1992.

New Zealand Government, **The Next Three Years**, Wellington 1993.

New Zealand Labour Party, **'Speech Notes of Labour's Education Policy 1984'**, delivered by David Lange on 22 May 1984.

New Zealand National Commission for UNESCO, Technical and Vocational Education. **Report of a Committee of the New Zealand National Commission for UNESCO**, Wellington 1978.

New Zealand Post Primary Teachers' Association (NZPPTA), **Moving forward. Directions for secondary education**, Wellington 1988.

New Zealand Qualifications Authority (NZQA), **Prescription for Automotive Engineering**, Wellington 1989.

New Zealand Qualifications Authority (NZQA), **New Zealand Trade Qualifications in Typing and Shorthand prescription**, Wellington 1990a.

New Zealand Qualifications Authority (NZQA), **Towards a National Qualifications Framework. General Principles and Directions**, Wellington 1990b.

New Zealand Qualifications Authority (NZQA), **Corporate Plan 1990-1991**, Wellington 1990c.

New Zealand Qualifications Authority (NZQA), **Designing The Framework**, Wellington 1991a.

New Zealand Qualifications Authority (NZQA), **Developing the National Qualifications Framework. A Report to the Board**, Wellington 1991b.

New Zealand Qualifications Authority (NZQA), **Annual Report 1990-91**, Wellington 1991c.

New Zealand Qualifications Authority (NZQA), **School Certificate. A Discussion Document about Changes to School Certificate Qualification**, Wellington 1991d.

New Zealand Qualifications Authority (NZQA), **Designing a Moderation System**, Wellington 1992.

New Zealand Qualifications Authority (NZQA), **Briefing Papers For The Incoming Government**, Wellington 1993a.

New Zealand Qualifications Authority (NZQA), **Quality Management Systems for The National Qualifications Framework**, Wellington 1993b.

New Zealand Qualifications Authority (NZQA), **Setting and Maintaining Standards for the National Qualifications Framework -A Guide for National Standards Bodies**, Wellington 1993c.

New Zealand Qualifications Authority (NZQA), **Guidelines, Criteria and Regulations for the Registration of Units and Qualifications for National Certificates and National Diplomas**, Wellington 1993d.

New Zealand Qualifications Authority (NZQA), **Essential Skills and Generic Skills in the National Qualifications Framework. Consultation Document**, Wellington, 1993e.

New Zealand Qualifications Authority (NZQA), **Standards-based assessment in the university. A case study**, Wellington 1993f.

New Zealand Qualifications Authority (NZQA), 'Vision of 21st century school outlined', **Framework Update**, Issue 8, August 1993g.

New Zealand Qualifications Authority (NZQA), 'What the New Qualifications Framework Means for Industry', **Framework for Industry**, March 1994a.

New Zealand Qualifications Authority (NZQA), **The National Qualifications Framework - Issues**, Wellington 1994b.

New Zealand Qualifications Authority (NZQA), **Analysis of responses to NZQA questionnaire on essential skills and generic skills in the national qualifications framework**, Wellington 1994c.

New Zealand Qualifications Authority (NZQA), **Assessment within the Qualifications Framework Policy Statement** (As approved by NZQA Board on 25 October 1994), Wellington 1994d.

New Zealand Qualifications Authority (NZQA), **Tomorrow's Learners**, Wellington 1994e.

New Zealand Qualifications Authority (NZQA), 'How did the Qualifications Framework evolve', Wellington 1994f.

New Zealand Qualifications Authority (NZQA), 'Trial Schools Pave the Way', **Framework for Schools**, November 1995a.

New Zealand Qualifications Authority (NZQA), **Using Outcome Analysis to derive and write Unit Standards**, Notes supporting the training workshop offered by the Framework Development Section of the NZQA, Wellington 1995b.

New Zealand Qualifications Authority (NZQA), **Interim Report 1995 School Trials Mathematics and Geography Unit Standards**, Wellington, November 1995c.

New Zealand Qualifications Authority (NZQA), **Annual Report 1994-95**, Wellington 1995d.

New Zealand Qualifications Authority (NZQA), **Proposed Legislation Changes: NZQA. Submission to the Cabinet Committee on Education, Training and Employment**, Wellington 1995e.

New Zealand Qualifications Authority (NZQA), **Learning and Assessment. A Guide to Assessment for the National Qualifications Framework**, Wellington 1996a.

New Zealand Qualifications Authority (NZQA), **Spotlight on Qualifications. New National Qualifications for New Zealand**, Wellington, 1996b.

New Zealand Qualifications Authority (NZQA), **National Qualifications Framework at a Glance**, (Interoffice memo on NQF update, dated 8 July 1996), Wellington 1996c.

New Zealand Qualifications Authority (NZQA), **Unit Standards Catalogue. Unit Standards and Qualifications Registered on the National Qualifications Framework**, 3 May 1996, Wellington 1996d.

New Zealand Qualifications Authority (NZQA), **Qualified Success: A history of the New Zealand Qualifications Authority** (draft), Wellington 1996e.

New Zealand Qualifications Authority (NZQA), **Workplace Assessor Programme Workbook**, Wellington 1996f.

New Zealand Qualifications Authority (NZQA), **Framework Update - Commentary of National Qualifications Framework Statistics Report 1 September 1996**, Wellington 1996g.

New Zealand Qualifications Authority (NZQA), **Post-Election Briefing for the Minister of Education**, Wellington 1996h.

New Zealand Qualifications Authority (NZQA), **The NQF Quick Guide**, Wellington 1996i.

New Zealand Qualifications Authority (NZQA), **Essential Skills in the National Qualifications Framework, Discussion Document**, Wellington n.d./a.

New Zealand Qualifications Authority (NZQA), **Analyst/Writer Workbook**, Wellington n.d./b.

New Zealand Qualifications Authority (NZQA), **National Qualifications Framework: Moderation**, (Internal paper) Wellington n.d./c.

New Zealand Qualifications Authority (NZQA), **The Record of Learning**, Wellington n.d./d.

New Zealand Qualifications Authority (NZQA), **Learning to learn. An introduction to the new National Qualifications Framework**, Wellington n.d./e.

New Zealand Qualifications Authority (NZQA), **Vision and Principles** (Internal paper), Wellington n.d./f.

New Zealand Qualifications Authority (NZQA), **Information Pack for Advisory Group Members**, Wellington n.d./g.

New Zealand Qualifications Authority (NZQA), Education & Training Support Agency (ETSA) and Ministry of Education, **Realising the Goals of the National Qualifications Framework**, Wellington 1996.

New Zealand Trades Certification Board (NZTCB). **Annual Reports** (various: 1948,1964,1966,1977,1978,1988,1989), Wellington.

New Zealand Trades Certification Board (NZTCB), **'Report - New Zealand Trades Certification Board Meeting: 9 October 1985'**, Wellington.

New Zealand Trades Certification Board (NZTCB), **New Zealand Trade Qualifications in Hairdressing**, Wellington 1990.

New Zealand Universities Review Committee, **New Zealand's Universities: Partners in National Development**, Wellington 1987.

New Zealand University Students Association (NZUSA), **'Students Welcome Tertiary Lead Group Report'**, (media release), 25 November 1994.

New Zealand Vice-Chancellors' Committee (NZVCC), **Responses from Universities to the booklet Towards a National Qualifications Framework**, Submission made to NZQA, Wellington, 20 December 1990.

New Zealand Vice-Chancellors' Committee (NZVCC), **The National Qualifications Framework and the Universities**, Wellington 1994.

New Zealand Vice-Chancellors' Committee (NZVCC), **Committee on University Academic Programmes. Functions and Procedures**, Wellington 1995.

New Zealand Vice-Chancellors' Committee Newsletter, 'TAG report released, outcome depends on 'on-going' development by NZQA, NZVCC', *New Zealand Vice-Chancellors' Committee Newsletter*, 39, June 1996, p.4.

Nikolaj,H. **Aufgabenverteilung in der Berufsausbildung. Inhaltliche Abstimmung der fachlichen Lerninhalte im Dualen System**, Berlin 1993.

Nitschke,D. 'Berufsausbildung als fossiles System', **Wirtschaft und Erziehung**, 12, 1986, pp.397-399.

Noah,H. 'Methods in Comparative Education', in Postlethwaite,T. (ed.), **The Encyclopaedia of Comparative Education and National Systems of Education**, Oxford 1988, pp.10-13.

Noble,C. 'A comparative analysis of strategies to increase the role of employers in training and development', **Australian and New Zealand Journal of Vocational Education Research**, 4, 1, 1996, pp.68-96.

Noelle-Neumann,E. 'Unification as seen by opinion research', **Deutschland**, 4, August 1995, pp.42-3.

Nübler,I. **Limits to change in training systems: the case of Germany**, Geneva 1991.

O'Connor,J. '**Research into quality assurance and vocational education and training**', Paper presented to the ANTA/National Research Advisory Council Conference, NSW TAFE Commission, Sydney, 20-21 April 1994.

O'Connor,R. 'Reform of tertiary education: the New Zealand experience, in Hall,W. (ed.), **What Future for Technical & Vocational Education & Training**, Adelaide 1993, pp.62-70.

OECD, **Reviews of National Policies for Education**. Germany, Paris 1972.

OECD, **Reviews for National Policies for Education**. New Zealand, Paris 1983.

OECD, *Universities under Scrutiny*, Paris 1987.

OECD, *Education and the Economy in a Changing Society*, Paris 1989.

OECD, *OECD Economic Surveys. Germany*, Paris 1993a.

OECD, *OECD Economic Surveys. New Zealand*, Paris 1993b.

OECD, 'Integrated learning in post-compulsory education: from structural reform to the learning process', Synthesis of discussion on 'The changing role of vocational and technical education and training', Paris 1993c.

OECD, *OECD Economic Surveys. New Zealand 1994*, Paris 1994a.

OECD, *Vocational Training in Germany: Modernisation and Responsiveness*, Paris 1994b.

OECD, 'Apprenticeship, "Alternance" and Dual System: Dead-Ends or Highways to the Future?', Paper presented to the OECD/CEREQ seminar on 'The changing role of vocational and technical training', Marseille, 12-14 April 1994c.

OECD, *Vocational Education and Training for Youth: Towards Coherent Policy and Practice*, Paris 1994d.

OECD, *Education At A Glance. OECD indicators*, Paris 1995a.

OECD, *Performance Standards In Education*, Paris 1995b.

OECD, *OECD Economic Surveys. New Zealand 1996*, Paris 1996.

Offe, C. *Berufsbildungsreform. Eine Fallstudie über Reformpolitik*, Frankfurt 1975.

Offe, C. *Contradictions of the Welfare State*, London 1984.

Office for Standards in Education, *The Development of double qualification courses in secondary schools in North Rhine Westphalia*, London 1994.

Olk, T. & Strikker, F. 'Jugend und Arbeit. Individualisierungs- und Flexibilisierungstendenzen in der Statuspassage Schule/Arbeitswelt, in Heitmeyer, W. & Olk, T. (eds.), *Individualisierung von Jugend. Gesellschaftliche Prozesse, subjektive Verarbeitungsformen, jugendpolitische Konsequenzen*, Weinheim 1990, pp.159-193.

Olssen,M. 'In defence of the welfare state and publicly provided education: a New Zealand perspective', *Journal of Education Policy*, 11, 3, 1996, pp.337-362.

Ortleb,R. 'Bildung und Beschäftigung in den 90er Jahren', in Buttler,F. *et al.*, **Europa und Deutschland. Zusammenwachsende Arbeitsmärkte und Sozialräume**, Stuttgart 1993, pp.45-52.

Ortleb,R. 'Berufliche Bildung sichert unseren Standort', Dokumentationen F.D.P. Bundestagsfraktion (Nr.2031), **Bildungspolitik/Weiterbildung/Neue Bundesländer**, 14 January 1994, Bonn, pp.1-2.

Otter,S. 'Learning Outcomes in Higher Education', in Burke,J. (ed.), **Outcomes, Learning and the Curriculum. Implications for NVQ's, GNVQ's and other qualifications**, London 1995.

Paffenholz,H. 'Der neue Rahmenstoffplan für die Ausbildung der Ausbilder. Ausbruch zu neuen Ufern?', *Zeitschrift für Berufs- und Wirtschaftspädagogik*, 90, 4, 1994, pp.361-375.

Pahl,J-G. 'Selbständiges Planen, Durchführen und Kontrollieren. Zur Umsetzung einer Zielvorgabe neugeordneter Elektro- und Metallberufe in Betrieb und Schule', *Die berufsbildende Schule*, 41, 7/8, 1989, pp.445-457.

Pampus,K. 'Berufsbildung im vereinigten Deutschland. Fragen zum Zusammenwachsen der Berufsbildungssysteme', *Die berufsbildende Schule*, 42, 7/8, 1990, pp.428-443.

Pampus,K. & Benner,H. 'Berufsbezogene Curriculumreform. Reflexionen über Erträge und Desiderate eines pädagogischen Innovationsansatzes im Bereich der betrieblichen Berufsbildung', *Zeitschrift für Pädagogik*, 34, 6, 1988, pp.799-816.

Parliamentary Council of the Federal Republic of Germany, **Basic Law for the Federal Republic of Germany**, Bonn 1994.

Parmentier,K. & Plicht,H. 'Strukturinformationen zur Beschäftigungssituation', in Jansen,R. & Stooss,F. (eds.), **Qualifikation und Erwerbssituation im geeinten Deutschland**, Berlin 1993, pp.44-70.

Parmentier,K., Schober,K. & Tessaring,M. 'Zur Lage der dualen Berufsausbildung in Deutschland. Neuere empirische Ergebnisse aus dem IAB', in Liesering,S., Schober,K. & Tessaring,M. (eds.), **Die Zukunft der dualen Berufsausbildung**, Nuremberg 1994, pp.7-47.

Pätzold,G. 'Handlungsorientierung in der beruflichen Bildung - Zur Begründung und Realisierung', in Pätzold,G. (ed.), **Handlungsorientierung in der beruflichen Bildung**, Frankfurt 1992, pp.9-29.

Paul-Kohlhoff,A. 'Modernisierung des Berufsbegriffs?', **Die Mittbestimmung**, 10, 1994, pp.14-16.

Paulini,H., Drochner,I. & Borch,H. Kriterienkatalog für die Evaluierung von Ausbildungsordnungen', **Berufsbildung in Wissenschaft und Praxis**, 24, 2, 1995, pp.37-42.

Pearce,L. 'The Relations between Adult Education and Work', Paper presented to "the UNESCO Challenge to Continuing Education" Auckland Conference, Wellington, April/May 1977.

Pearson,D. & Thorns,D. **Eclipse of Equality**, Sydney 1983.

Peddie,R. 'Standards, Levels, Grades and "Merits": A Critical Analysis', Auckland n.d.

Peddie,R. **Beyond the Norm? An Introduction to Standards-based Assessment**, Wellington 1992.

Peddie,R. 'Difficulty, Excellence and Levels: Implications for a Qualifications Framework', Issues Paper Two, Auckland 1994.

Peddie,R. 'Competency, Standards, Merit and Excellence', in Peddie,R. & Tuck,B. (eds.), **Setting the Standards. The Assessment of Competence in National Qualifications**, Palmerston North 1995, pp.177-199.

Peddie,R. & Tuck,B. 'Fruitful Change? Concluding Comment, in Peddie,R. & Tuck,B. (eds.), **Setting the Standards. The Assessment of Competence in National Qualifications**, Palmerston North 1995, pp.200-204.

Peisert,H. & Framhein,G. **Das Hochschulsystem in der Bundesrepublik Deutschland. Struktur und Entwicklungstendenzen**, Bonn 1990.

Perkins,D. & Salomon,G. 'Are cognitive skills context-bound?', **Educational Researcher**, 18, 1989, pp.16-25.

Peters,M., Marshall,J. & Massey,L. 'Recent Educational Reforms in Aotearoa', in Coxon,E., Jenkins,K., Marshall,J. & Massey,L. (eds.), **The Policies of Learning and Teaching in Aotearoa-New Zealand**, Palmerston North 1994.

Philips,D. 'Curriculum Development in New Zealand', **Educational Review**, 45, 2, 1993, pp.155-164.

Phillips,D. 'Educational Developments in the New Germany', **Compare**, 25, 1, 1995, pp.35-47.

Picht,G. **Die deutsche Bildungskatastrophe**, Olten 1964.

Pilz,E. & Ortwein,H. **Das vereinte Deutschland**, Stuttgart 1992.

Piore,M. & Sabel,C. **The Second Industrial Divide. Possibilities for Prosperity**, New York 1984.

Polytechnic, 'Education and training keystones', **Polytechnic**, 18, July / August 1994,

Polytechnic, 'A timely concept', **Polytechnic**, 27, March / April 1996, p.1.

Popham,W. **Criterion-Referenced Measurement**, Englewood Cliffs, 1978.

Popham,W. **Modern Educational Measurement. A Practitioner's Perspective**, Needham Heights 1990.

Porter,M. **The Competitive Advantage of Nations**, New York 1990.

Position, 'Der Ausbilder als Moderator', **Position**, 1, 1993a, pp.26-27.

Position, 'Rahmenstoffplan für die Ausbildung der Ausbilder', **Position**, 3, 1993b, p.22.

Position, 'Neuordnungsverfahren. Mehr Flexibilität bei der Aktualisierung von Ausbildungsberufen', **Position**, 1, 1994, pp. 14-15.

Positionspapier der Gruppe der Beauftragten der Arbeitnehmer im Koordinierungskreis berufliche Weiterbildung (KKBW), in DGB, **Fortbildungsberufe stärken - neue Weiterbildungsanforderungen umsetzen**, Dusseldorf 1992, pp.3-26.

Postlethwaite,T. (ed.), **The Encyclopaedia of Comparative Education and National Systems of Education**, Oxford 1988.

Potter,B. 'Technical and technological education', in Mitchell,F. **New Zealand education today**, Wellington 1968, pp.112-122.

Potter,B. 'Technical and technological education', in Mitchell,F. **Looking ahead in New Zealand education**, Wellington 1971, pp.117-142.

PPTA News, 'Overseas lessons: standards-based assessment in England and New Zealand', **PPTA News**, 17, 12, 1996, p.3.

Prais,S. 'Vocational Qualifications of the Labour Force in Britain and Germany', **National Institute Economic Review**, 98, November 1981, pp.47-59.

Prais,S. 'How Europe Would See the New British Initiative for Standardising Vocational Qualifications', **National Institute Economic Review**, August 1989, pp.52-54.

Prais,S. 'Vocational qualifications in Britain and Europe: theory and practice', **National Institute Economic Review**, May 1991, pp.86-90.

Prais,S. **Productivity, Education and Training. An International Perspective**, London 1995.

Press and Information Office of the Federal Government, **Federal Republic of Germany: Vocational Training** (Information 28), Bonn 1988.

Pressemitteilung BiBB, 'Berufsausbildung in den neuen Bundesländern weiterhin auf öffentliche Unterstützung angewiesen', **Pressemitteilung BiBB**, 21/94, Berlin/Bonn, 30/6/1994, pp.1-2.

Pressemitteilung BiBB, 'Duale Berufsausbildung bei ostdeutschen Schülerinnen und Schülern stark gefragt!' **Pressemitteilung BiBB**, 3/95, Berlin/Bonn, 19/01/1995, p.1.

Prime Ministerial Task Force on Employment, **Employment. The Issues**, Wellington 1994.

Pritchard,R. 'The German Dual System: educational utopia?' **Comparative Education**, 28, 2, 1992, pp.131-143.

Probine,M. & Fargher,R. **The Management, Funding, and Organisation of Continuing Education and Training. The Report of the Ministerial Working Party**, Wellington 1987.

Projektgruppe Schlüsselqualifikationen in der beruflichen Ausbildung, **Wege zur beruflichen Mündigkeit: didaktische Materialien zur integrierten Vermittlung und Förderung von fachlichen Inhalten und Schlüsselqualifikationen in der betrieblichen Ausbildung. Teil 1: Didaktische Grundlagen**, Weinheim 1992.

Projektgruppe Schlüsselqualifikationen in der beruflichen Ausbildung, **Wege zur beruflichen Mündigkeit: didaktische Materialien zur integrierten Vermittlung und Förderung von fachlichen Inhalten und Schlüsselqualifikationen in der betrieblichen Ausbildung. Didaktische Materialien, Teil 2**, Weinheim 1994.

Prunty, J. 'Signposts for a Critical Educational Policy Analysis', *Australian Journal of Education*, 29, 2, 1985, pp.133-140.

Purnell, C. 'On a System of Technical Education for Artizans', *Transactions*, 17:398:407, 1884.

Pütz, H. 'Gemeinwohl und Konsens in der beruflichen Bildung', *Berufsbildung in Wissenschaft und Praxis*, 24, 1, 1995, pp.45-47.

Pütz, H. 'Veränderte Ausbildungslandschaften -welche Zukunft hat das Duale System?', *Berufsbildung in Wissenschaft und Praxis*, 25, 1, 1996, pp.3-8.

QA News, 'Framework up and running', *QA News*, 17, 1993a, pp.1-2.

QA News, 'First National Certificate provider accredited', *QA News*, 18, 1993b, p.1.

QA News, 'Questions and answers', *QA News*, 23, August 1994a, pp.4-6.

QA News, 'Degrees will go onto Framework', *QA News*, 24, 1994b, pp.1-2.

Quack, S. **Theory and Practice of "Key Qualifications" in Germany: a Broad Concept in an Institutionally Complex Economy**, Berlin 1993.

R.E.Taylor Consultancy, **NZQA discussion documents - level descriptors**, (letter to Alan Barker, NZQA, 23 June 1996), Wellington 1996.

Raddatz, R. 'In-company German vocational education from a teaching, economic and labor-market viewpoint', in Rust, V., Silberman, H. & Weiner, M. (eds.), **Vocational Education: Germany and the United States**, Berkeley 1992, pp.49-54.

Radnor,H. & Shaw,K. 'Developing a collaborative approach to moderation', in Torrance,H. (ed.), **Evaluating authentic assessment**, Buckingham 1995, pp.124-143.

Rae,K. 'Te Ao Hurihuri: Tomorrow's Schools and the Consequences of Administrative Change', **DELTA**, 44, 1990, pp.59-71.

Raggatt,P. 'Quality Control in the Dual System of West Germany', **Oxford Review of Education**, 14, 2, 1988, pp.163-186.

Raggatt,P. **Contrasting routes towards competence**, Occasional paper, CYAS, Open University, Milton Keynes, 1993.

Rawlings,F. 'Academic Audit in New Zealand Universities: Some Considerations', **New Zealand Journal of Educational Studies**, 30, 1, 1995, pp.1-14.

Reetz,L. 'Zum Konzept der Schlüsselqualifikationen in der Berufsbildung (Teil I)', **Berufsbildung in Wissenschaft und Praxis**, 18, 5, 1989, pp.3-10.

Reich,R. **The Work of Nations**, New York 1992.

Reisse,W. 'PAL-Prüfungen - ein Problem der Gültigkeit und/oder der Vereinheitlichung beruflicher Prüfungen', **Die berufsbildende Schule**, 7/8, 1978, pp.456-459.

Reisse,W. **Research and development activities in testing, assessment and licensing in the field of vocational training by the Federal Institute for Vocational Training**, Berlin 1987.

Reisse,W. 'The German System of Assessment and Certification in Vocational Training', paper presented to the Portuguese Ministry of Education and OECD seminar on the Changing Role of Vocational and Technical Education and Training, held in Porto on 27-30 October 1992, Paris 1992.

Reisse,W. 'Einführung: Wie kann man berufliche Handlungskompetenz mit Prüfungen erfassen?', in BiBB, **Umsetzung neuer Qualifikationen in die Berufsbildungspraxis**, BiBB 2nd Expert Congress, 9-11 December 1992, Berlin 1993a, pp.179-183.

Reisse,W. 'Das Strukturprinzip bei integrierte Prüfungen in der beruflichen Bildung', in BiBB, **Umsetzung neuer Qualifikationen in die Berufsbildungspraxis**, BiBB 2nd Expert Congress, 9-11 December 1992, Berlin 1993b, pp.213-217.

Reisse,W. 'The German System of Assessment and Certification in Vocational Training', **Competence and Assessment**, 25, 1994, pp.15-18.

Reisse,W. 'Ein prüfungsspezifischer Schlüsselqualifikationskatalog', **Berufsbildung in Wissenschaft und Praxis**, 24, 6, 1995, pp.47-50.

Reisse,W. 'Germany: The Institutional Framework and Certification in the Dual System', In OECD, **Assessing and Certifying Occupational Skills and Competences in Vocational Education and Training**, Paris 1996, pp.157-171.

Renwick,W. **Wider Horizons for Continuing Education**, Wellington 1975.

Report of the Phase I Working Party, **The establishment of the National Education Qualifications Authority**, Wellington 1989.

Report of the Working Party on Improving Learning and Teaching, **'Improving Learning and Teaching'**, Educational Development Conference 1973-4, Wellington 1974.

Reuling,J. 'The German "Berufsprinzip" as a Model for Regulating Training Content and Examination Levels', paper presented to the International Interdisciplinary Conference of the International Research Network for Training and Development, Milan, 23-25 June 1994.

Richardson,B. 'Comment on content in thesis', Memorandum to P.Kappert, dated 29 August 1996.

Richardson,L. 'Parties and Political Change', in Oliver,W. (ed.) with Williams,B. **The Oxford History of New Zealand**, Wellington 1981, pp.197-225.

Richardson,R. 'Economic Strategy', **Appendix to the Journal of the House of Representatives**, B.6 [Pt.II], 1992.

Rissmann,F. 'Gedanken zur programmierten Wissenkontrolle', **Die berufsbildende Schule**, 30, 1978, pp.247-250.

Rivers,J. 'ITOs have too much power, say tutors', **New Zealand Education Review**, 1, 21, September 20-26, 1996, p.1.

Roberts,K., Clark,S. & Wallace,C. 'Flexibility and Individualisation: A Comparison of Transitions into Employment in England and Germany', **Sociology**, 28, 1, 1994, pp.31-54.

Robinson, S. & Kuhlmann, J. 'Two decades of non-reform in West German education', **Comparative Education Review**, October 1967, pp.311-330.

Robinson, C., Yelder, J., Horsburgh, M., O'Connor, B., Bellingham, L., Bygrave, J. & Horne, W. **Levels of Learning: An Examination of the Use of 'Levels of Learning' in New Zealand Polytechnics**, Report to New Zealand Qualifications Authority, Auckland 1995.

Robson, J. 'The New Zealand National Qualifications Framework: A Basis For Action?', **Journal of Further and Higher Education**, 18, 3, 1994, pp.63-73.

Robson, J. 'The New Zealand Qualifications Authority and the Universities: progress towards a unified framework', **Journal of Vocational Education and Training**, 48, 1, 1996, pp.41-55.

Rohlf, H.-H. & Schäfer, U. **Jahrbuch der Bundesrepublik Deutschland 1993/4**, Nördlingen 1993.

Rösch, G. **Methoden der Tätigkeitsanalyse**, Mannheim 1987.

Rose, R. 'Prospective Evaluation through Comparative Analysis: Youth Training in a Time-Space Perspective', in Ryan, P. (ed.), **International Comparisons of Vocational Education and Training for Intermediate Skills**, London 1991, pp.68-92.

Rose, R. & Wignanek, G. **Training without trainers? How Germany avoids Britain's supply-side bottleneck**, London 1990.

Roth, H.-G. **25 Jahre Bildungsreform in der Bundesrepublik. Bilanz und Perspektiven**, Bad Heilbrunn 1975.

Rudd, C. 'The Role of the State in the New Zealand Economy', in Holland, M. & Boston, J. (eds.), **The Fourth Labour Government. Politics and Policy in New Zealand**, Auckland 1992, pp.83-100.

Rudolph, W. 'The transition from school to the world of work in the German Democratic Republic', **Prospects**, 19, 1, 1989, pp.93-102.

Rudolph, W. **Die Berufsbildung in der Deutschen Demokratischen Republik (Eine Systemdarstellung)**, Berlin 1990.

Rützel, J. 'Rahmenlehrpläne für den beruflichen Unterricht. Überlegungen zur Lehrplanrevision', **Die berufsbildende Schule**, 45, 10, 1993, pp.321-325.

Ruhland,H-J. 'Der Beruf als Orientierungspunkt der Bildungspolitik', **Die berufsbildende Schule**, 44, 5, 1992, pp.284-295

Rust,V. 'Educational Responses to Reforms in East Germany, Czechoslovakia, and Poland', **Phi Delta Kappan**, January 1992, pp.386-389.

Sadler,S. 'Specifying and Promulgating Standards', **Oxford Review of Education**, 13, 2, 1987, pp.191-209.

Sadowski,D., Backes-Gellner,U. & Frick,B. 'Work Councils: Barriers or Boosts for the Competitiveness of German Firms?', **British Journal of Industrial Relations**, 33, 1995, pp.493-513.

Salomon,G. & Perkins,D. 'Rocky roads to transfer: rethinking mechanisms of a neglected phenomenon', **Educational Psychologist**, 24, 1989, pp.113-142.

Sass,R. & Wagner,G. **Moderation Strategies for Achieving Consistency with Unit Standards**, Wellington 1992.

Schaub,H. & Zenke,K. **Wörterbuch zur Pädagogik**, Munich 1995.

Schaumann,F. 'Gleichwertigkeit von Berufs-und Allgemeinbildung - Zukunftschance der beruflichen Bildung', **Berufsbildung in Wissenschaft und Praxis**, 22, 1, 1993, pp.11-20.

Schelten,A. **Grundlagen der Arbeitspädagogik**, Stuttgart 1987.

Schelten,A. **Einführung in die Berufspädagogik**, Stuttgart 1991.

Schlösser,M. 'Berufsbildung zwischen Lehrlingsboom und Reformnotwendigkeiten -die Probleme eines didaktisch bestimmten Systems der Berufsausbildung in den 1980er Jahren', in Stratmann,K. & Schlösser,M. **Das Duale System der Berufsbildung. Eine historische Analyse seiner Reformdebatten**, Frankfurt 1990, pp.245-289.

Schmidt,H. 'Berufsbildungsforschung des BIBB unter den Schwerpunktaspekten von Vereinheitlichung und Differenzierung der beruflichen Bildung', in Buttler,H., Czycholl,R. & Pütz,H. (eds.), **Modernisierung beruflicher Bildung vor den Ansprüchen von Vereinheitlichung und Differenzierung**, Nuremberg 1993, pp.138-154.

Schmidt,H. 'Ausserbetriebliche Ausbildung in den neuen Bundesländern - nur eine Notlösung?', **Berufsbildung in Wissenschaft und Praxis**, 23, 1994, 4, pp.1-2.

Schmidt,H. **Handeln für Deutschland. Wege aus der Krise**, Reinbek 1994.

Schmidt,H. 'Flexibilisierung der Berufsausbildung - Flexibilisierung als Organisationsprinzip?', **Berufsbildung in Wissenschaft und Praxis**, 25, 4, 1996, pp.1-2.

Schmidt,H. & Reisse,W. 'Zensuren und Beurteilungen in der beruflichen Bildung', in Becker,H. & Hentig,H.von (eds.), **Zensuren. Lüge - Notwendigkeit - Alternativen**, Frankfurt 1983, pp.180-201.

Schneider,P. 'Selbstqualifizierung und Selbstorganisation: Zwei Leitideen einer neuen Berufsbildung', in Meyer-Dohm,P. & Schneider,P. (eds.), **Berufliche Bildung im lernenden Unternehmen. Neue Wege zur beruflichen Qualifizierung**, Stuttgart 1991, pp.45-98.

Schober,K. 'The Educational System, Vocational Training and Youth Unemployment in West Germany', **Compare**, 14, 2, 1984, pp.129-144.

Schober,K. 'Ausbildungsabsichten Jugendlicher und das Angebot an beruflicher Erstausbildung in den neuen Bildungsländern', in Seyfried,B. & Wordelmann,P. (eds.), **Neue Länder -Neue Berufsausbildung?**, Berlin 1992, pp.233-253.

Schober,K. 'Der schwierige Übergang zum dualen System Berufsausbildung in den neuen Bundesländern', **Materialien aus der Arbeitsmarkt-und Berufsforschung**, 3, 1994, pp.1-23.

Schober,K. 'Von der Verbleibs-zur Übergangsforschung. Ein Plädoyer für mehr betriebsbezogene Forschungsansätze', **Übergänge von der Ausbildung in den Beruf. Die Situation an der zweite Schwelle in der Mitte der neunziger Jahre**, Berlin 1995a, pp.71-79.

Schober,K. 'Von der Lehrstellenbilanz zum Lehrstellenmarkt', in Jansen,R. (ed.), **Arbeitsmarkt und Berufsausbildung in den neuen Bundesländern**, Berlin 1995b, pp.33-68.

Schober,K. & Tessaring,M. 'Eine unendliche Geschichte. Vom Wandel im Bildungs-und Berufswahlverhalten Jugendlicher', **Materialien aus der Arbeitsmarkt- und Berufsforschung**, 3, 1993, pp.1-19.

School Certificate Examination Board, **Internal Assessment for School Certificate**, Wellington 1972.

Schulz,H-D. 'Handlungslernen - ein didaktisches Konzept in der Berufsausbildung', in Pahl,J-P. & Schulz,H-D. (eds.), **Lernen nach der Neuordnung**, Wetzlar 1989, pp.81-104.

Seitz,H. 'Ganzheitliches Lehren und Lernen. Einige Thesen', **Zeitschrift für Berufs- und Wirtschaftspädagogik**, 86, 8, 1990, pp.724-735.

Sellars,J. 'Quality Assurance - Business and Technology Education Council (BTEC) Procedures and Processes', Paper presented to the Qualifications for the 21st Century International Conference, Wellington, 21-24 January 1992.

Selwood,S. **Progress or Paradox? NZQA: The Genesis of a Radical Reconstruction of Qualifications Policy in New Zealand**, Unpublished thesis for a Master of Educational Administration degree, Palmerston North: Massey University, 1991.

Semmler,O. 'Die berufsbildungspolitische Position des DGB in den 70er Jahren-ein Konzept auch für die Zukunft?', in Lipsmeier,A. (ed.), **Berufsbildungspolitik in den 70er Jahre**, Wiesbaden 1983, pp.69-80.

Sengenberger,W. 'West German Employment Policy: Restoring Worker Competition', **Industrial Relations**, 23, 3, 1984, pp.323-343.

Sexton,S. **New Zealand Schools. An Evaluation of Recent Reforms and Future Directions**, Wellington 1990.

Seyfried,B. "'Neuer Wein in alten Schläuchen"? Überlegungen zum methodischen Vorgehen in der "Übergangsforschung"', in Seyfried,B. & Wordelmann,P. (eds.), **Neue Länder - Neue Berufsausbildung?**, Berlin 1992, pp.161-172.

Sheets,R. **Skill Standards Systems in Germany, Japan and Canada: Implications for a US Skill Standards System**, Washington 1994.

Short Life Working Group (SLWG), **Post Compulsory School Certification SLWG** (unpublished paper), Wellington n.d.

Silver,H. **Education, Change and the Policy Process**, London 1990.

Simons,D. **Georg Kerschensteiner**, Bungay 1966.

Skill New Zealand Newsletter, 'Progress Update', *Skill New Zealand Newsletter*, January 1996a, p.1.

Skill New Zealand Newsletter, 'Key Statistics', *Skill New Zealand Newsletter*, 10, June 1996b, p.2.

Smelt,S. 'Validation and certification of education and training', Treasury paper to the Minister of Finance (Acting), Wellington, 26 May 1988.

Smelt,S. **Industry Training Organisations**, Wellington 1995.

Smith,E. **The German Economy**, London 1994.

Smithers,A. **All Our Futures - Britain's Education Revolution**, London 1993.

Smyth,R. **Letter to NQF Project Team**, Lincoln University, Christchurch, 7 November 1990.

Snook,L. 'Skills crisis myth persists', **The Post**, 27 February 1994.

Social and Labour Bulletin, 'A year after unification: Economic and social evaluation of the former GDR', **Social and Labour Bulletin**, 3-4, 1991, pp.222-225.

Societäts-Verlag, **Tatsachen über Deutschland**, Frankfurt on the Main 1994.

Solmon,L. 'An economic perspective on vocational education', in Rust,V., Silberman,H. & Weiner,M. (eds.), **Vocational Education: Germany and the United States**, Berkeley 1992, pp.199-216.

Sonnek,W., Timm,J. & Walbaum,F. 'Bisherige Erfahrungen im Neuordnungsverfahren Technische Zeichner/Technische Zeichnerin', in BiBB, **Umsetzung neuer Qualifikationen in die Berufsbildungspraxis**, BiBB 2nd Expert Congress, 9-11 December 1992, Berlin 1993a, pp.219-223.

Sontheimer,K. **Grundzüge des politischen Systems der neuen Bundesrepublik Deutschland**, Munich 1995.

SPD (Sozialdemokratische Partei Deutschlands), **Grundsatzprogramm der Sozialdemokratischen Partei Deutschlands**, Berlin 1989.

Spencer,F. **Technical Education in Australia and New Zealand**, New York 1939.

Spenner,K. 'The Upgrading and Downgrading of Occupations: Issues, Evidence, and Implications for Education', **Review of Educational Research**, 55, 2, 1985, pp.125-154.

Stasz,C., McArthur,D., Lewis,M. & Ramsey,K. **Teaching and learning generic skills for the workplace**, Berkeley 1990.

Statistics New Zealand, **New Zealand Yearbook 1996**, Wellington 1996.

Statistisches Bundesamt, **Bildung und Kultur**, Fachserie 11, Reihe 2, Berufliche Schulen, Wiesbaden 1994a.

Statistisches Bundesamt, **Bildung und Kultur**, Fachserie 11, Reihe 3, Berufliche Bildung, Wiesbaden 1994b.

Statistisches Bundesamt, **Daten Report 6: Zahlen und Fakten über die Bundesrepublik Deutschland 1993/4**, Munich/Landsberg 1994c.

Steadman,S. 'The Assessment of Outcomes', in J.Burke (ed.), **Outcomes, Learning and the Curriculum. Implications for NVQ's, GNVQ's and other qualifications**, London 1995, pp.201-212.

Steedman,H. 'The Economics of Youth Training in Germany', **The Economic Journal**, 103, 1993, pp.1279-1291.

Steedman,H. 'Assessment, Certification and Recognition of Occupational Skills and Competences', **European Vocational Training Journal**, 1, 1, 1994, pp.36-42.

Stern, 'Berufe mit Zukunft', **Stern Extra**, 47, 1993, pp.97-110.

Stevenson,J. 'Competency-based training in Australia: an analysis of assumptions', **Australian and New Zealand Journal of Vocational Education Research**, 1, 1, 1993, pp.87-104.

Stewart,J. & Hamlin,B. 'Competence-based Qualifications: The Case against Change', **Journal of European Industrial Training**, 16, 7, 1992a, pp.21-32.

Stewart,J. & Hamlin,B. 'Competence-based Qualifications: the Case for Established Methodologies', **Journal of European Industrial Training**, 16, 10, 1992b, pp.9-16.

Strachan,J. 'Educational Assessment Quality in New Zealand - From Control to Assurance', Paper presented to the Second Asia-Pacific Conference on Educational Assessment and Research, Chiang Mai, Thailand, 4-8 September 1995.

Stratenwerth, W. 'Definition und Entwicklung der Berufsausbildung in der Bundesrepublik Deutschland', in Anweiler, O. *et al.*, (eds.) **Vergleich von Bildung und Erziehung in der Bundesrepublik Deutschland und der Deutsche Demokratische Republik**, Cologne 1990, pp.278-281.

Stratmann, K. 'Das Duale System und das Problem seiner "Verschulung"', **Die Deutsche Berufs- und Fachschule**, 71, Heft 11, 1975, pp.820-835.

Stratmann, K. & Pätzold, G. 'Institutionalisierung der Berufsbildung', in Baethge, M. (ed.) **Enzyklopädie Erziehungswissenschaft**, Band 5 - Organisation, Recht und Ökonomie des Bildungswesen, Stuttgart 1982, pp.114-134.

Stratmann, K. & Schlösser, M. **Das Duale System der Berufsbildung. Eine historische Analyse seiner Reformdebatten**, Frankfurt 1990.

Streeck, W. 'Skills and the Limits of Neo-Liberalism: The Enterprise of the Future as a Place of Learning', **Work, Employment & Society**, 3, 1, 1989, pp.89-104.

Streeck, W. 'More Uncertainties: German unions Facing 1992', **Industrial Relations**, 30, 3, 1991, pp.317-349.

Streeck, W., Hilbert, J., Kevelaer, K-H.van, Maier, F. & Weber, H. **The role of the social partners in vocational training and further training in the Federal Republic of Germany**, Berlin 1987.

Sturrock, F. **Industry Training and Pre-employment Programmes in New Zealand**, Wellington 1995.

Swain, P. 'How to hire and keep skilled workers', **The Dominion**, 28 January 1994.

Sweet, R. 'Redressing the Balance: What Role for Schools in Vocational Preparation?', Paper presented to the Annual Conference of the Economic and Commercial Teachers' Association of Australia, Auckland, 7 January 1992.

Taskforce on Skills Development, **The Skills Imperative: Towards a Learning Culture for New Zealand**, Wellington 1990.

Taylor, C. 'Assessment for Measurement or Standards: The Peril and Promise of Large-Scale Assessment Reform', **American Educational Research Journal**, 31, 2, 1994, pp.231-262.

Taylor, M. **Education and work in the Federal Republic of Germany**, London 1981.

Taylor, R. 'Towards competency: an industry view', in Wagner, G. (ed.), **Proceedings of the Towards Competency Seminar. A Seminar on Curriculum Development and Evaluation in Vocational Education in New Zealand**, Wellington 1988, pp.13-20.

Taylor, R. **Skills standards and vocational qualifications**. Report on a visit to the UK National Council for Vocational Qualifications, Wellington 1990.

Tertiary Action Group (TAG), **Consultation with stakeholders, August-September 1995**, Wellington 1995.

Tertiary Action Group (TAG), **Report to the Board of the New Zealand Qualifications Authority on the implementation of a harmonised Qualifications Framework**, Wellington 1996.

Tessaring, M. 'Das duale System der Berufsausbildung in Deutschland: Attraktivität und Beschäftigungsperspektiven', **Mitteilungen aus der Arbeitsmarkt- und Berufsforschung**, 26, 2, 1993, pp.131-161.

Tessaring, M. 'Langfristige Tendenzen des Arbeitskräftebedarfs nach Tätigkeiten und Qualifikationen in den alten Bundesländern bis zum Jahre 2010', **Mitteilungen aus der Arbeitsmarkt- und Berufsforschung**, 27, 1, 1994, pp.1-19.

The Allen Consulting Group, **Overseas Vocational Education and Training Reforms. Implications for Australia**, Melbourne 1994a.

The Allen Consulting Group, **'Radical Reforms To Develop a Training**

The Commission of Inquiry into Apprenticeship and Related Matters, Report of Commission of Inquiry into Apprenticeship and Related Matters, **Appendix to the Journal of the House of Representatives**, H-11b, 1945.

The Commission of Inquiry into Vocational Training in New Zealand, **Report of the Commission of Inquiry into Vocational Training in New Zealand**, Wellington 1965.

The Economist, 'Universities. Towers of babble', **The Economist**, 25 December 1993-7 January 1994a.

The Economist, 'Germany Survey', **The Economist**, 21 May 1994b.

The Economist, 'Hitting the rails', **The Economist**, 13 January 1996a.

The Economist, 'Is the model broken?', **The Economist**, 4 May 1996b.

The Employer, 'Education: a big budget winner', **The Employer**, 143, July 1995, pp.4-5.

The Evening Post, 'Teaching profession under stress', **The Evening Post**, 7 July 1993.

The Evening Post, 'Communists admit unity has bright side', **The Evening Post**, 27 September 1995.

The Federal Government, **Basic Law for the Federal Republic of Germany**, Bonn 1994.

The Federal Government of the Federal Republic of Germany, 'Vocational Training', **Information**, 28, Bonn 1988.

The Federal Minister for Education and Science, **Vocational Training in the Dual System in the Federal Republic of Germany. An Investment in the Future**, Bonn 1992.

The OECD Observer, **OECD in Figures. Statistics on the member countries**, 1995 edition, Supplement to The OECD Observer, No.194 June/July 1995.

The OECD Observer, **OECD in Figures. Statistics on the member countries**, 1996 edition, Supplement to The OECD Observer, No.200 June/July 1996.

The Officials Committee set up to Review the New Zealand Qualifications Authority, **A Review of the New Zealand Qualifications Authority**, Wellington 1991.

The Press, 'Seamless education', *The Press*, 4 April 1994a.

The Press, 'Universities and NZQA', *The Press*, 24 November 1994b.

The Press, 'What teachers think of the framework', *The Press*, 20 June 1995.

The Times Educational Supplement, 'Dual purpose. Hermann Schmidt explains why Germany is determined to help its training system through difficult times', *The Times Educational Supplement*, 22 January 1993, p.16.

The Training Bulletin, 'A new approach to vocational qualifications', *The Training Bulletin*, 2, 1, 1986, pp.4-5.

The Training Bulletin, 'Towards Competency', *The Training Bulletin*, 4, 3, 1988, pp.5-7.

The Treasury, **Economic Management**, Wellington 1984.

The Treasury, **Government Management. Brief to the Incoming Government, Volume II Educational Issues**, Wellington 1987.

The Treasury, **Briefing to the Incoming Government**, Wellington 1990.

Tillmann, H. 'Fortbildungsberufe -Berufe mit Zukunft? -einige Aspekte -, in BiBB, Fortbildungsberufe -Berufe mit Zukunft, **Ergebnisse, Veröffentlichungen und Materialien aus dem BIBB**, Berlin October 1992, pp.1-8.

Tollkötter, B. 'Grenzen der programmierten Prüfung', *Die berufsbildende Schule*, 30, 1978, pp.225-237.

Toohey, S., Ryan, G., McLean, J. & Hughes, C. 'Assessing competency-based education and training: a literature review', **Australian and New Zealand Journal of Vocational Education Research**, 3, 2, 1995, pp.86-117.

Torrance, H. (ed.), **Evaluating authentic assessment**, Buckingham 1995.

Townsend, M. **Generic skills and transfer**, Auckland 1993.

Tribe, J. 'Core Skills: a critical examination', **Educational Review**, 48, 1, 1996, pp.13-27.

Trotter, R. 'New Zealand Labour Market Reform: Class Struggle or Productivity Struggle', 9 July 1986, pp.1-16, in New Zealand Business Roundtable, **Labour Market & Employment. Statements on Labour Relations**, Wellington 1988.

Tuck, B. 'Generally Fine but Occasionally Overcast with the Possibility of Thunder and Lightning: A Year in the Life of the New Zealand Qualifications Authority', **New Zealand Annual Review of Education**, 4, 1994, pp.229-245.

Tuck, B. 'Issues of Objectivity in Assessment: A Plea for Moderation', in Peddie, R. & Tuck, B. (eds.), **Setting the Standards. The Assessment of Competence in National Qualifications**, Palmerston North 1995, pp.59-77.

Tuck, B. & Peddie, R. 'Introduction', in Peddie, R. & Tuck, B. (eds.), **Setting the Standards. The Assessment of Competence in National Qualifications**, Palmerston North 1995, pp.9-14.

Tullock, G. 'Economic Imperialism', in Buchanan, J. & Tollison, R. (eds.), **Theory of Public Choice. Political Applications of Economics**, Ann Arbor 1972, pp.317-329.

Turner, R. 'Sponsored and contest mobility and the school system', **American Sociological Review**, 25, 1960, pp.855-67.

Tysome, T. 'Dual threat puts Germans near collapse', **The Times Higher Education Supplement**, 2 October 1992.

Uhe, E. 'Qualifikation-Kompetenz-Bildung. Auf die Bildung kommt es an', **Berufsbildung**, 28, 1994, p.2.

Ulrich, J. **Duale Berufsausbildung in den neuen Bundesländern. Wie die Auszubildenden sie sehen**, (preliminary results of a BiBB research project), Bonn 1994.

Ulrich, J. & Westhoff, G. 'Die Ausbildung absolviert, den Umbruch auch? - Zum Verbleib junger Fachkräfte aus den neuen Bundesländern', **Berufsbildung in Wissenschaft und Praxis**, 23, 4, 1994, pp.16-21.

Ulrich, J. & Westhoff, G. 'Ausbildung und berufliche Integration von jungen Fachkräften in den neuen Bundesländern', in Jansen, R. (ed.), **Arbeitsmarkt und Berufsausbildung in den neuen Bundesländern**, Berlin 1995, pp.111-144.

Uthmann,K-J. 'Vocational Education and Training in Germany after Unification', *European Journal of Education*, 26, 1991, pp.5-12.

Vaessen,J. *Musea in een museale cultuur - de problematische legitimering van het kunstmuseum*, Zeist 1980.

Vajna,T. *Verbandsfibel. Kammern und Verbände der deutschen Wirtschaft*, Cologne 1994.

Vincent,D. 'Norm-referenced Assessment', in Walberg,J. & Härtel,D. (eds.), *The International Encyclopaedia of Educational Evaluation*, Oxford 1990, pp.111-113.

Viskovic,A. 'Learning and Competence: A Critique of NZQA's Perspective as Evidenced by the Unit Standards Requirements', *Research and development in higher education*, 15, 1992, pp.334-341.

Vocational and Industrial Training Board of Singapore, *A study of apprenticeship in Asia and the Pacific*, Islamabad 1981.

Vocational Training Council (VTC), *Current developments in apprenticeship. Committee on Apprenticeship and Related Trade Training*, Wellington 1975a.

Vocational Training Council (VTC), *Apprenticeship - Present and Future*, Wellington 1977.

Vocational Training Council (VTC), *Impact of the Vocational Training Council and Industry Training Boards on New Zealand industry*, Wellington 1978.

Vocational Training Council (VTC), *Review of Apprenticeship. Recommendations for Future Policy*, Wellington 1980a.

Vocational Training Council (VTC), *Skills for Tomorrow. A Resource Kit* (incomplete first draft), Wellington 1988.

Vocational Training Council (VTC), *Annual Reports* (various: 1970,1975b,1976,1979,1980b,1982), Wellington.

VTC Newsletter, 'Viewpoint Of Department Of Education', *VTC Newsletter*, No.24, November 1974, p.4.

VTC Newsletter, 'Levies Approved in Three Industries', *VTC Newsletter*, No.67, December 1978-January 1979, p.1.

Vught,F.van **Towards a General Model of Higher Education Quality Assessment**, Enschede 1991.

Vuyst,J.de 'Federalism and Educational Policy: the West German Experience', **Comparative Education**, 20, 3, 1984, pp.377-386.

Wagner,G. (ed.), **Proceedings of the Towards Competency Seminar. A Seminar on Curriculum Development and Evaluation in Vocational Education in New Zealand**, Wellington 1988.

Wagner,G. & Sass,R. **Final Report to Further Develop a Coherent Set of Level Descriptions for the National Qualifications Framework**, Wellington 1992.

Waslander,S. & Thrupp,M. **Choice, Competition and Segregation; an empirical analysis of a secondary school market 1990-1993** (unpublished paper), Wellington 1993.

Watson,A. **The Germans. Who Are They Now?** London 1994.

Watts,A. 'Education and Employment: the traditional bonds', in Dale,R.(ed.), **Education, Training & Employment. Towards a New Vocationalism?**, London 1985, pp.9-22.

Webster,A., Perry,P. & Drawneek,T. **Can New Zealand Rise To The Competitive Production Challenge? A Special Report On Cultural Factors In Economic Activities In New Zealand** (Revised Edition), Palmerston North 1992.

Weegmann,I. 'The role of government and the two sides of industry in vocational training', **Vocational training**, 1, 1992, pp.52-55.

Weiermair,K. 'Relationships Between Social Values, the Education System and the Structure and Performance of Labour Markets', in Dlugos,G. & Weiermair,K. (eds.), **Management Under Differing Value Systems. Political, Social and Economical Perspectives in a Changing World**, Berlin 1981, pp.179-193.

Weiland,S. *et al.* 9 November. **Das Jahr danach. Vom Fall der Mauer bis zur ersten gesamtdeutschen Wahl**, Munich 1991.

Weiler,H. 'Legalization, Expertise, and Participation: Strategies of Compensatory Legitimation in Educational Policy', **Comparative Education Review**, 27, 2, 1983, pp.259-277.

Weiler,H. 'Why reforms fail: the politics of education in France and the Federal Republic of Germany', **Journal of Curriculum Studies**, 1989, 21, 4, pp.291-305.

Weiler,H. 'Curriculum Reform and the Legitimation of Educational Objectives: the case of the Federal Republic of Germany', **Oxford Review of Education**, 16, 1, 1990, pp.15-27.

Weinstock,H. 'Berufsertüchtigung und Menschenbildung', **Die Deutsche Berufsschule**, 1959, p.554.

Weishaupt,H., Weiss,M., Recum,H.von & Haug,R. **Perspektiven des Bildungswesens der Bundesrepublik Deutschlands. Rahmenbedingungen, Problemlagen, Lösungsstrategien**, Baden Baden 1988.

Weiss,M. 'Educational Expansion and Reform in the Federal Republic in Germany. Outcomes and Implications for Future Policy', in Recum,H.von & Weiss,M. (eds.), **Social Change and Educational Planning in West Germany**, Frankfurt 1991, pp.9-27.

Weiss,M. 'New guiding principles in educational policy: the case of Germany', **Journal of Education Policy**, 8, 4, 1993, pp.307-320.

Weiss,M. & Weishaupt,H. 'Experiences with Comprehensive Educational Planning: Lessons from the Federal Republic of Germany', in Recum,H.von & Weiss,M. (eds.), **Social Change and Educational Planning in West Germany**, Frankfurt 1991, pp.77-94.

Welch,A. 'Class, Culture and the State in Comparative Education: problems, perspectives and Prospects', **Comparative Education**, 29, 1, 1993, pp.7-27.

Werner,M. **Australian key competencies in an international perspective**, Leabrook 1995.

Wiggins,G. 'A True Test: Toward More Authentic and Equitable Assessment', **Phi Delta Kappan**, 70, 9, 1989, pp.703-713.

Wiggins,G. 'Assessment: Authenticity, Context and Validity', **Phi Delta Kappan**, 75, 3, 1993, pp.200-214.

Wiggins,G. **Assessing Student Performance**, San Francisco 1993.

Williams,M. 'PPTA about-turn on qualifications', **The Dominion**, 17 September 1996.

Willis,D. 'Assessment trends in 1992: future directions handicapped by a legacy from the past?', **New Zealand Annual Review of Education**, 2, 1992, pp.245-262.

Wilms,D. 'Die deutsche Vereinigung - Perspektiven für das deutsche Berufsbildungssystem', **Die berufsbildende Schule**, 42, 12, 1990, pp.723-730.

Wilson,D. 'Reforming Technical and Technological Education', **The Vocational Aspect of Education**, 45, 3, 1993, pp.265-283.

Winning,A. Apprenticeships and RPL: Re-cognizing the Learning of a Trade, **Education + Training**, 35, 7, 1993, pp.18-21.

Winter,R. 'Quality Management' or the 'Educative Workplace: Alternative Versions of Competency-Based Education', **Journal of Further and Higher Education**, 16, 3, 1992, pp.100-115.

Wirth,A. 'Education and Work: The Choices We Face', **Phi Delta Kappa**, January 1993, pp.361-366.

Wirtschaft und Berufserziehung, 'Parteiprogramme', **Wirtschaft und Berufserziehung**, 46, 12, 1994, pp.376-378.

Wirtschaft und Berufserziehung, 'Beschäftigungsperspektiven der Absolventen', **Wirtschaft und Berufserziehung**, 2, 1995, pp.58-60.

Wirtschaft und Erziehung, 'Wenig Neues am Bildungshorizont', **Wirtschaft und Erziehung**, 12, 1994, pp.376-378.

Witte,H-H. "'Bildung und Ausbildung für die Zukunft". 19 Thesen zur Programmdiskussion', **Gewerkschaftliche Bildungspolitik**, 4, 1994, pp.83-86.

Wittwer,W. & Pilnei,M. **Die ungleichen Partner. Berufsbildung in der Bundesrepublik. Strukturen, Probleme, Perspektiven**, Weinheim 1986.

Wobbe,W. 'Anthropocentric production systems: advanced manufacturing is based on skilled people', **Vocational Training**, 2, 1991, pp.3-6.

Wolf,A. 'Unwrapping Knowledge and Understanding from Standards of Competence', in Black,H. and Wolf,A. (eds.), **Knowledge and Competence. Current Issues in Training and Education**, London 1990, pp.31-38.

Wolf,A. 'Assessing core skills', **Cambridge Journal of Education**, 21, 2, 1991a, pp.189-202.

Wolf,A. 'Assessment in European vocational education and training: current trends and issues', **Journal of Curriculum Studies**, 6, 1991b, pp.552-557.

Wolf,A. **Assessment issues and problems in a criterion-based system**, London 1993.

Wolf,A. 'Assessing the broad skills within occupational competence', **Competence and Assessment**, 25, 1994a, pp.3-6.

Wolf,A. 'Measuring competence: the experience of the United Kingdom', **European Vocational Training Journal**, 1, 1994b, pp.29-35.

Wolf,A. 'Authentic assessments in a competitive sector: institutional prerequisites and cautionary tales', in Torrance,H. (ed.), **Evaluating authentic assessment**, Buckingham 1995a, pp.88-104.

Wolf,A. **Competence-Based Assessment**, Buckingham 1995b.

Wood,S. 'Introduction', in Wood,S. (ed.), **The Degradation of Work? Skill, deskilling and the labour process**, London 1982, pp.11-22.

Wood,S. 'The Deskilling Debate, New Technology and Work Organization', **Acta Sociologica**, 30, 1, 1987, pp.3-24.

Woodhall,M. 'Human Capital Concepts', in Psacharopoulos,G. (ed.), **Economics of Education. Research and Studies**, Oxford 1987, pp.21-24.

Woods,M. 'Assessment in New Zealand Secondary Schools', Paper presented to the Qualifications for the 21st Century International Conference, Wellington, 21-24 January 1992, pp.281-298.

Woods,M. 'The New Zealand Qualifications Framework', AEC/MOVEET Credentials Working Group, 8 October 1992 Melbourne.

Wordelmann,P. 'Zwischenbilanz des Übergangs der Berufsausbildung in den neuen Bundesländern', in Seyfried,B. & Wordelmann,P. (eds.), **Neue Länder - Neue Berufsausbildung?**, Berlin 1992, pp.11-28.

Workplace New Zealand, 'Quality through partnership. Successful workplaces of the future', Report of Workplace New Zealand - Designing the future, An international conference on workplace reform, Rotorua, 27-30 September 1992.