Co-operative Learning as a Method For Reducing Bullying.

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ABSTRACT

Evidence from international research suggests that bullying increases as students make the transition to intermediate school. Bullying interventions frequently focus on individual change with little attention paid to the context that supports the behaviour. This pre-experimental case study examined bullying from a contextual perspective. A co-operative learning program was implemented in a Year 7 and Year 8 composite class to investigate if such a program could reduce bullying and increase positive peer interactions among the students. Qualitative and quantitative data were collected using a questionnaire, sociogram, interviews and observations. The results of the study are equivocal because while the questionnaire results and the results from a component of the sociogram indicated increased bullying behaviours, the observations and interviews indicated a decrease in the behaviour. Also, clearer evidence of increased peer interactions came from the interviews and observations than from the sociogram. The implications of this study relate more to the implementation of co-operative learning than to its impact on bullying behaviour. Effective dissemination of co-operative learning requires: fidelity to the methodology, peer support over time, frequent practice, recognition of resistance and a school climate that both supports and fosters its implementation. A list of indicators for effective implementation of co-operative learning is provided in this study.

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CHAPTER ONE

INTRODUCTION

Overview of Study Context

Bullying can be found in every school in the country. Often it reflects the way young people interact in society and while most schools recognize the existence of bullying, schools react to its existence in a variety of ways. When bullying is downplayed, students suffer harassment and diminished academic success as a hostile environment interferes with learning (Batsche & Knoff, 1994). The most effective bullying intervention programs are comprehensive, requiring effort at school, classroom and individual levels (Espelage & Swearer, 2003). While well organized programs can be effective, not all schools implement programs at a systemic level. Where systemic programs are not in place in schools, work at a classroom level can be seen as a 'bottom up' approach but necessary if change is to be effected.

In order to understand and deal with bullying, we need to know what it is. In Olweus' (1993) definition "a student is being bullied or victimized when he or she is exposed repeatedly and over time to negative actions on the part of one or more other students" (p 9). We like to think of schools as safe places for students, but a number of studies have confirmed that bullying is a pervasive and universal problem (Batsche & Knoff, 1994; Craig, Pepler, & Atlas, 2000; Rigby, 1996). While information from New Zealand is limited, Cram, Doherty, and Pocock (1995) note 75% of girls and 77% of boys report being bullied sometime at school.

During adolescence young people turn from parents to peers, for social and psychological support in the process of forming an independent identity. This transition segregates adolescents into peer groups of similar nature. For students at the bottom of the hierarchy, exclusion comes at a time when the need for inclusion is the greatest. We should not underestimate the strong socializing effects of school. Because acceptability is a strong human need, the pressure to be part of and to conform to, the rules of the peer group, is

powerful. Not to conform is to identify as being different (Cullingford & Morrison, 1997). Peer relations contribute to both the social and cognitive development of students and ultimately the effectiveness with which we function as adults. Students whose friendships are marked by contention become disruptive and disengaged (Hartup, 1992).

To help prevent school bullying, teachers must attempt to alter the process by which some students form themselves into negative subgroups. The promotion of respect instead of disparagement, inclusion and not exclusion and collaborative community not isolation, is in the view of Kagan (2001), the best way to help prevent school bullying and violence. The New Zealand Curriculum Framework (Ministry of Education, 1993) places the onus on schools to address these issues through the Essential Learning Areas, the Essential Skills and the Attitudes and Values component of the Curriculum. The promotion of common understandings and values, the development of communication, problem solving and social and co-operative skills helps to address that breakdown, or lack of development, of community and values among students. Bronfenbrenner's (1979) social-ecological perspective of behaviour conceptualizes bullying as being a complex interplay of inter and intra individual variables effected over time. He suggests that individual characteristics are influenced by a variety of ecological contexts including peers, teachers, school and community.

At the classroom level educators can consider practices that help address anti-social behaviour. The way teachers structure student to student interaction patterns influences how well they learn, how they feel about each other and how much self esteem they have. The literature on effective schools suggests that when co-operative learning is used, a learning climate is established that facilitates the development of pro-social behaviours (Mc Evoy & Welker, 2000). Students involved in co-operative learning tend to have higher academic scores, higher self-esteem and more positive social skills (Johnson, Johnson & Holubec, 2002). Kagan (2001) suggests that the implicit curriculum is at least as influential on students' learning as the explicit curriculum. By placing emphasis on the implicit curriculum and using the co-operative learning teaching methodology to develop empathy and cohesiveness, a classroom climate can be developed where the practice of

responsibility, fairness, tolerance, teamwork, understanding and respect for different points of view is operative. As students work together the classroom becomes an inclusive community, not one of division. Co-operative learning groups promote the feeling of peer acceptance, by reducing the need to join deviant peer groups in order to gain a sense of belonging and success. In their study of social skilling through co-operative learning, Jordan and Le Metais (1997) found the adolescent students showed an increased willingness to engage with those outside their immediate friendship groups and that the group as a whole had a positive influence on the behaviour of difficult students.

While co-operative learning methods generally have positive effects on student relationships (Slavin, 1980), the study by Cowie, Smith, Boulton, and Laver (1994) to evaluate whether developing more co-operative attitudes and behaviours would reduce bullying, found that those classes in which co-operative learning was implemented, presented no difference compared to the control classes. However the writers acknowledge that the failure of the intervention may have been in part, due to teacher reluctance to implement co-operative learning fully.

The ecological paradigm recognizes that student behaviour is the result of the interaction between the student and the learning context and that change occurs as a result of the changes in this interrelationship (Thomson, Brown, Jones, & Manins, 1999). As a Research Teacher: Learning and Behaviour (R.T.L.B.) I am working in this paradigm, so the recognition of inclusive education is paramount for me. R.T.L.B. are required to work as agents of change and to support students and teachers using inclusive methodologies. Many bullying interventions place the onus on the individual to change, instead of on contextual change to support a different kind of behaviour.

Information on bullying in New Zealand is sparse (Adair, Dixon, Moore, & Sutherland, 2000). While there is evidence that co-operative learning results in improvements in both the achievement of students and in the quality of their relationships (Slavin, 1991), limited research is available for its use as an intervention for bullying behaviour and it is for this reason this study was chosen.

This Study

Following best practice (Merrill, 2001) a multi-method, multi-source, multi-setting design was used in this study. The research examined the effect of using co-operative learning as an intervention for bullying, across a whole class setting. The focus was on class peer interactions and whether, as a result of using co-operative learning, there would be a gain in social skills that would result in wider peer interactions and decreased bullying behaviour. A pre-experimental research design was chosen for the study because of the difficulty of being able to control all of the variables inherent in a complex classroom situation. The Co-operative Learning Program (C.L.P.) was designed to be implemented over a ten week period with both the class teacher and researcher effecting this.

Overview of Thesis

This thesis is divided into six chapters.

Chapter One: Introduction. In the introduction to this thesis there is a brief description of the context surrounding the study.

Chapter Two: Peer Relations and Bullying. This chapter outlines a developmental perspective of children's socialization and the effect school transition can have on peer relationships. A definition of bullying is provided and a socio-ecological approach to conceptualize bullying is outlined. The New Zealand legal and curriculum requirements are presented as are the characteristics of effective intervention programs.

Chapter Three: Co-operative Learning. In this chapter, the use of co-operative learning as an ecological intervention for bullying within the framework of inclusive practice is examined. The influence peer groups and classroom context have on bullying behaviour is explored and two models of co-operative learning are offered. The chapter concludes with an outline of the C.L.P. used in this research project.

Chapter Four: Methodology. This chapter sets the purpose of this research and outlines the research questions. A description of the research design and the methods used for the data collection and analysis are given.

Chapter Five: Results. The results of the study are presented in this chapter. The results from each of the data sources are presented and the research questions are answered.

Chapter Six: Discussion. This four part chapter consists of: the limitations to this study, the interpretation of the results, the implications for practice and the implications for future research.

CHAPTER TWO

PEER RELATIONS AND BULLYING

This chapter outlines a developmental perspective on children's socialization from childhood through to pre-adolescence. It describes the contextual change of school transition and the impact that can have on peer relationships. A definition of bullying and a description of the factors that may influence the development of aggressive behaviour are provided. As well, this chapter highlights Bronfenbrenner's (1979) social-ecological theory as an approach to conceptualize bullying and peer victimization. The New Zealand legal and curriculum requirements are outlined and school based approaches to intervention are described. The chapter concludes with a description of a number of interventions used in New Zealand schools.

Social Development in Children

This section explores the social development of children to pre-adolescence and the impact of school transition on pre-adolescent peer relationships.

Socialization in Children

Becoming a social being is a process that starts as an infant and develops continuously with the resolution of conflict and the need to live harmoniously with others. Children learn the rules of the social world through their relationships with others and through shared experiences (Smith, 1998).

Vygotsky (1978) places emphasis on the social orientation of cognitive development. Social interaction, he believes, is the basis of cognitive development, as the acquisition of thinking skills result from our interactions with others. The movement for children is from inter-psychological functioning to intra-psychological functioning and their associated growth in conceptual understanding. Vygotsky gives a central role to culture and to its transfer through social interaction and communication with peers and adults. He emphasizes that children do not develop in isolation, but within a social matrix. Young

children's peer-related social competence is viewed as a critical developmental competency. Their successful peer interactions provide both an important context and a mechanism for the acquisition and elaboration of essential developmental abilities such as social, language and cognitive competencies.

Having friends and being friends are defining moments of childhood. As children develop independence from their secure caregiver attachments, it is peer friendships that draw them into a widening social world (Hartup, 1996). A child's ability to form positive social relationships with peers is an important component of social development. Friendship is a source of companionship and emotional support. Children, who fail to achieve competence in social relationships with their peers, are at risk of social instability later in their lives. There is evidence that children's social competence in their kindergarten years accurately predicts academic as well as social competence in their later grades (Katz & Mc Clelland, cited in Smith, 1998). The preschool study by Lindsey (2002) identified a greater social competence, in those children engaged in friendships. Moreover, those children with a greater number of friends were ranked by teachers as being more socially competent than those children with fewer or no friends.

Friendship and imaginary play provide a context for children to talk and learn about why people behave the way they do. Communication, taking perspectives and managing disagreements, help children to develop the emotional self control which is crucial to social and emotional development. Learning to play games provides the opportunity to cooperate, explore feelings and share experiences which in turn help lay the foundations for the development of social and self regulation skills (Bodrova & Leong, 2003; Dunn, Cutting, & Fisher, 2002). Although there are many factors within the environment and the child that influence children's social behaviour, Hartup (1992) notes that it is peer relationships in particular that have considerable influence on both our social and emotional development and thus the way we function as adults. The single best predictor of adult adaptation, he suggests, is the way in which the child interacts with other children. Those children who are disliked, are aggressive or disruptive and who cannot sustain close relationships with other children in their peer culture, are at risk. The more

aggressive a child is the lower that child's acceptability with his peers (Philipsen, Deptula, & Cohen, 1999).

Pre-Adolescent Social Development

Few developmental periods are characterized by as many changes as that of pre-adolescence. These include the biological transformations of puberty, the transition in educational facility from primary to intermediate school and the psychological shifts that accompany the emergence of sexual awareness. With these changes come a heightened potential for either positive or negative outcomes as children begin to mature mentally and think more about their identity and where they fit in a world beyond the family (Eccles, 1999). As children progress through adolescence they build knowledge bases that help them navigate through social situations. The importance of developing a good social identity improves social skills and helps build a personal identity. By identifying with a group, pre-adolescents place themselves in a system that gives them an identity and a place to practise their social skills (Berndt, Hawkins, & Jiao, 1999).

Variations in friendship quality and stability can lessen or increase the influence of misbehaving friends. High friendship stability magnifies the influence of misbehaving friends and conversely students decrease in behavioural problems where there are unstable friendships with friends high in behavioural problems (Berndt, Hawkins, & Jiao, 1999). Pre-adolescents who develop positive peer relationships generate more solutions to problems, propose more mature solutions and are less aggressive than those who have negative peer relationships (Tate, 2001). Increasingly at this time the peer group is used for behaviour definition and the establishment of group values. During the pre-adolescent years the group becomes increasingly stable, exclusive and important, approximating that of the family (Besag, 1993).

Social competence can be conceptualized as the possession of those social skills that increase a person's social effectiveness. A socially competent person is able to initiate and maintain positive social interactions, develop friendships and cope effectively in their social environment. Social skills have been demonstrated to be critical prerequisites to

academic and interpersonal success. When social skills are deficient, rewarding interpersonal opportunities are often missed and negative consequences are likely to be experienced (Elliott & Gresham, 1987). The failure to develop appropriate social skills can lead adolescents to engage in maladaptive or delinquent behaviour. As a result, these youth become ensnared in an unsuccessful social interaction cycle that precludes the establishment of positive social relationships (Rutherford, Mathur, & Quinn, 1998).

School Transition

The transition to intermediate school provides a contextual change that is heightened by the physical change of puberty and its associated emotionality. During this time both girls and boys experience an increase in psychological distress due to peer relationships, conflict with authority and academic pressures (Akos, 2002). The complexity of groups increases in adolescence, at a time when cliques hold more unity and importance for them (Cairns, Leung, Buchanan, & Cairns, 1995). Girls evaluate themselves on the feedback they receive from small close relationships, while boys make comparisons between each other in larger social groups (Cross & Madson, 1997). With the changing nature of the peer group context and the increasing social and cognitive skills of pre-adolescents, their understanding and definitions of bullying also undergo changes (Cairns et al., 1995), with bullying becoming more complex and indirect or relational in nature (Crick & Grotpeter, 1995). Detection of this more subtle form of bullying becomes difficult for teachers as discrimination needs to be made between play and abuse (Schafer & Smith, 1996).

Bullying

In this section a definition of bullying is provided and bullying in relation to pre-adolescence is discussed. Additionally, 'teasing' or the perception of bullying is elaborated on and the prevalence of bullying considered.

Definition of Bullying

The requisites of friendship are reciprocity and commitment, and where interactions rest on an equal power base. Bullying, a subcategory of aggressive behaviour, is characterized

in part by a (real or imaginary) imbalance of power between two or more individuals (Boulton, 1993), and involves repeated and enduring aggressive behaviour (Smith, 1998).

A student is being bullied or victimized when he or she is exposed, repeatedly and over time, to negative actions on the part of one or more other students....It is a negative action, which someone intentionally inflicts, or attempts to inflict, injury or discomfort upon another....Negative actions can be carried out by words (verbally for instance), by threatening, taunting, teasing and calling names. It is a negative action when someone hits, pushes kicks, pinches or restrains another by physical contact. (Olweus, 1993, p.9)

Hazler (2000) and Brendtro (2001) have included social exclusion as an example of bullying behaviour. Girls in particular are likely to use psychological bullying. This includes verbal taunts, and non-verbal looks and gestures, all designed to accomplish an individual's exclusion from the group (Casey-Cannon, Hayward, & Gowen, 2001). When bullying occurs there is always an imbalance of power or strength in the relationship (either physically or psychologically), intent to harm and that harm is repeated over time (Chamberlain, 2003; Heinrichs, 2003). In summary, most definitions of bullying include the concepts of physical and verbal aggression which is systematic and ongoing, perpetrated by an individual or group in an attempt to gain power, prestige or goods.

Teasing pertains to those verbal and/or nonverbal interactions occurring among peers that are humorous and playful on one level but annoying to the target child on the other (Vessey, Duffy, O'Sullivan, & Swanson, 2003). While this may have a negative connotation, Shapiro, Baumeister, and Kessler (cited in Roberts & Walter, 2000) believe that teasing behaviours are a common and important feature in children's social lives. Roberts and Walter also consider these behaviours a normal developmental characteristic of interpersonal communication and play in children and adolescents, but points out that it is the manner, intensity and incidence of the behaviour that makes movement along the continuum from fun to bullying occur. Oliver and Hoover (1994) add the dimension of interpretation also as being a decisive factor in that classification. How the target child receives the behaviour and whether the behaviour is deemed appropriate, by the child

who is 'teasing', are the determinants of whether the behaviour is benign or bullying. Who then makes that decision: the person giving or the person receiving? A dilemma for research now becomes apparent; how to establish whether teasing is playful and therefore acceptable, or bullying and therefore unacceptable.

Bullying and the School Environment

The rate and stability of bullying during early adolescence is dependent on school organization. A decline in bullying continues across school years except where there is a transition from primary to intermediate school during early adolescence. With the change of schools there is an increase in bullying behaviour and then a decline following the transition (Pellegrini, 2002). Although physical bullying appears to decrease with age, verbal abuse by both genders appears to remain constant (Batsche & Knoff, 1994). Girls are beleaguered for the way they look and boys for the way they act. Both genders feel powerless in this situation and look to adults to create a school climate that is both healthy and supportive (Shakeshaft & Barber, 1995). Between 80% and 90% of adolescents and pre-adolescents will, at some point in their school career, face on going psychological and physical harassment (Hazler, Hoover, & Oliver, 1992) and that "a critical factor in school safety and climate is the interpersonal relationship between individuals and groups of students." (Hazler, Hoover, & Oliver, 1991, p.143)

The effects of bullying contribute to the development of an unsafe school environment and a decline in the academic and social performance of students involved in bullying experiences (Batsche & Knoff, 1994). Schools need to change the experiences children have of bullying, as neglect of this behaviour can affect children long after the original event (Maxwell & Carroll-Lind, 1997).

Bullying among school children and adolescents has been the focus of much international research with surveys carried out in England, Europe, North America and the Pacific Rim countries, but comparisons of bullying rates between countries has been difficult to make because of the differences in definitions and methodologies used for assessment (Wolke, Woods, Stanford, & Schulz, 2001). Bullying is a pervasive problem that affects

approximately 15% to 20% of the school age population in the United States with available evidence indicating that the incidences are increasing (Batsche & Knoff, 1994). The results of a survey of Australian children between the ages of 6 to 16 years suggest that 14% are bullied often (Rigby & Slee, 1991).

Bullying From a Social-Ecological Perspective

In this section bullying is conceptualized from the social-ecological perspective of Bronfenbrenner (1979). The 'systemic developmental framework' proposed by Atlas and Pepler (1998) is then explained and the factors identified in that framework elaborated on.

Social-Ecological Perspective to Bullying

An approach taken to conceptualize an understanding of bullying and peer victimization is Bronfenbrenner's (1979) social-ecological perspective. From this perspective, bullying is an ecological phenomenon established by a complex interplay of inter and intra-individual variables effected over time. Individual characteristics are considered jointly influenced by a variety of ecological contexts including peers, teachers, school and the community. The actions of peers, teachers, other adults at school and the school characteristics are all implicated in the development and maintenance of bullying (Espelage & Swearer, 2003). From a theoretical perspective, bullying is not an individual characteristic but an interactional process that occurs within the peer group and the broader social context.

Systemic Developmental Framework

In Atlas and Pepler's (1998) systemic developmental framework of bullying and victimization, a wide array of factors are considered as contributing to the development of aggressive behaviour. Based on Bronfenbrenner's (1979) theory, this approach is an integration of individual factors, inter-individual interaction, social relations, and cultural and ecological conditions. In this model, the bullying interaction is influenced by: the individual characteristics of the bully and the victim, the interactional process between the bully and the victim, the presence or absence of peers and teachers, and the context in

which the bullying behaviour develops. Bullying therefore, should not be addressed as a single issue model but one involving a number of interacting variables.

1. Individual

The first variable in this framework is the individual. Olweus (1993) has described boys who bully as physically stronger than other students, with a desire to dominate others through aggression or threats of aggression. They fit the descriptors of impulsive, defiant and oppositional with little empathy for those they target. Most young people who bully have a positive view of themselves in terms of social competence and self esteem and perceive themselves as easy to like (Johnson & Lewis, 1999). Compared to other students, the victims of bullies are usually quiet, non-aggressive, and insecure and have few friends. They lack the ability to defend themselves, acquiesce to peer demands and seldom report bullying incidents (Charach, Pepler, & Ziegler, 1995). The victims of bullies are also at risk in relation to academic and social achievement and may suffer from: chronic absenteeism, reduced academic performance, increased apprehension, loneliness, abandonment from peers and suicide (Roberts, Walter, & Coursol, 1996). The general trend is for boys to both bully and be bullied more than girls (Branwhite, 1994). The victims of bullying report that about 65% is carried out by boys, 15% by girls and 19% by boys and girls (Boulton & Underwood, 1993). The type of bullying varies according to gender as well. Boys are more likely to be involved in physical bullying, than girls who tend more towards behaviours such as social ostracism (Siann & Callaghan, 1993).

2. Bully – Victim Relationship

The second variable within the systemic-developmental framework is the bully/victim relationship. Bullies and victims cannot be studied in isolation and separate from each other, but as part of a context that supports those behaviours. It is important to view the bully as involved in a symbiotic relationship with the victim (Roberts & Walter, 2000). The prominent feature within this dyadic relationship is the power imbalance between the bully and the victim. It is an asymmetrical coercive power imbalance where the victims have difficulty defending themselves (Twemlow & Sacco, 1996). As Batsche and Knoff

(1994) have stated, 'bullying is all about control' (p.167). Bullies have a strong desire to dominate others (Hoover & Juul, 1993) and most bullies want to appear powerful and 'cool' before their peers (Charach, Pepler, & Ziegler, 1995), while students who have been victimized by their peers, have been found to be socially ineffective in peer relationships, learn social avoidance and are often alone (Oliver & Hoover, 1994).

3. Social Ecology

The third variable in this theoretical model involves the social ecology where bullying behaviour occurs. The focus extends beyond the bully/victim dyad to include peers, teachers and the social context of the school. Astor, Meyer, and Pitner (2001) support the proposition that it is the relationship between a student's developmental needs and the social structures of the school that either exacerbate or reduce social problems. Espelage, Bosworth, and Simon (2000) also argue that interventions should focus beyond the individual to include the socio-cultural factors that may be contributing to and maintaining bullying behaviours.

While bullying affects those directly involved, it also has consequences for peers who are either actively involved, or witnesses. Bullying behaviour is largely enabled and sustained by peers, who as bystanders take on the role of reinforcer, defender, or remain neutral. The social context influences whether bystanders act responsibly as defenders, remain dispassionate, or reinforce the bullying behaviour. These peer actions are strong moderators of bullying behaviour (O'Connell, Pepler, & Craig, 1999; Salmivalli, 1999).

4. Teacher – Student Interactions

From a social ecological perspective, consideration must be given to the role of the teacher in student bully-victim interactions. Teacher response to bullying may influence both the perpetrator's and the victim's future behaviour. When school adults ignore, trivialize, or tolerate bullying, the victims internalize the implied message that the adults have discounted their worth as individuals (Boulton & Underwood, 1993). This may happen unintentionally as the study by Barone (1997) highlights. In this study teachers identified 16% of students as having been victims of bullying behaviours, while 58.8% of

students said they had experienced being bullied. The size of the difference in the perceptions between students and teachers signals that teachers do not recognize the extent to which bullying occurs in schools. Teachers fail to intervene in bullying incidents for various reasons: they may be unaware, believe that discord is part of growing up, want to discourage the telling of tales, or want children to work things out on their own. Froschl and Gropper (1999) suggest that because of the negative impact bullying has on a teacher's ability to teach, the underlying theme then becomes one of fostering positive relationships among children.

5. Structure of the Social Context

School structures influence the frequency and type of bullying interactions that occur at school. The unstructured nature of playground activities and the limited adult supervision afforded is more conducive to direct bullying than in the classroom where children resort to more covert types of bullying (Craig, Pepler, & Atlas, 2000). Within the classroom context, bullying is most likely to occur when students are involved in independent activities. When teachers are aware of bullying behaviour in the classroom they are inclined to intervene, but often they are unaware of this covert activity (Atlas & Pepler, 1998).

The School as an Organization

There is little doubt that school has a vital role to play in children's social development. Principally, the school needs to provide a safe environment for its students and a social curriculum for students with socialization difficulties (Besag, 1993). This section explores the social ecology of the school and the New Zealand legal and curriculum requirements.

Social Ecology

The school as a whole can be seen as partly responsible for the maintenance of maladaptive behaviour if the necessary preventive work has not been adopted. The focus moves from considering what is wrong with the student to what is wrong with the organization (Besag, 1993). Schools can provide positive role models, encourage the

development of social skills and provide support for individual students at risk. The characteristics of the school program and the school management are more significant factors in the reduction of bullying than the background of the students who attend it (Maxwell & Carroll-Lind, 1997). But even within the same school, classrooms differ appreciably in aggression levels. Students in classrooms where aggression is normative become more aggressive. It is the classroom teacher's practices and beliefs that play a defining role in the differences in aggression levels. Teachers help shape intentionally or unintentionally the microsystems in which students interact. Successful teachers show warmth and anticipate students' interpersonal problems by knowing their social status, peer groups, friends and enemies. Teachers should be aware of the social dynamics operating among their students; the knowledge gained by being connected to all sectors of the peer ecology (Rodkin & Hodges, 2003).

Student peer group associations are principal to the continuity or change of social behaviour. The school social context is a system in which the social structure influences (and is influenced by) peer groups, groups influence (and are influenced by) individuals and individuals are influenced by the values of the social structure. Because of the interrelatedness of these components, change will be effective to the degree there is corresponding change in all components. Thus, interventions for maladaptive behaviour will be most effective with a coordinated focus on social skills, peer group associations and school and classroom structures (Farmer, 2000). What is needed is a teaching methodology, for the promotion and generalization of social interaction skills, for use during instructional time at school (Smith & Giles, 2003).

The New Zealand Legal and Curriculum Requirements

From a policy point of view, the legislation is intertwined with the Board of Trustees charter agreement and the Minister of Education and the school's responsibility through the curriculum documents.

The National Administration Guideline 5 (Ministry of Education, 2000)

requires each Board of Trustees to:

- (i) provide a safe physical and emotional environment for students, and
- (ii) comply in full with any legislation currently in force or that may be developed to ensure the safety of students and employees.

Schools therefore, have a regulatory obligation to provide a safe physical and emotional environment for all their students.

Because the school environment is unique in that a young person is required to attend a part of each day and be within that school's jurisdiction, it may be argued that there is an enhanced responsibility for schools to provide for the physical and emotional safety of students within the bounds of their control (Varnham, 1999).

At the curriculum level, The Health and Physical Education in the New Zealand Curriculum Statement (Ministry of Education, 1999) has four aims, two of which are pertinent to physical and emotional safety.

- C Relationships with Other People.* Develop understandings, skills and attitudes that enhance interaction and relationships with people;
- D Healthy Communities and Environments.* Participate in creating healthy communities and environments by taking responsible and critical action (p. 7).

This is further augmented in the 'Attitudes and Values' section of the same document:

They will develop **respect for the rights of other people**, for example, through:

- acceptance of a range of abilities;
- acknowledgement of diverse viewpoints;
- tolerance, rangimarie, and open-mindedness.

They will develop **care and concern for other people in their community and for the environment** through:

- co-operation and awhina;
- applying aroha, manaakitanga, care, compassion, and mahi a ngakau;
- constructive challenge and competition;

- positive involvement and participation.

They will develop a **sense of social justice** and will demonstrate:

- fairness
- inclusiveness and non-discriminatory practices (p. 34).

The New Zealand Curriculum Framework (Ministry of Education, 1993) specifies eight groupings of essential skills to be taught across the whole curriculum throughout the years of school. While the development of all eight essential skills is considered important for students if they are to participate fully in society the 'Social and Co-operative Skills' that are pertinent to addressing issues of bullying are:

- develop good relationships with others and work in co-operative ways to achieve common goals,
- take responsibility as a member of a group for jointly decided actions and decisions,
- learn to recognize, analyze and respond appropriately to discriminatory practices and behaviours,
- demonstrate consideration for others through qualities such as integrity, reliability, trustworthiness, caring or compassion (aroha), fairness, diligence, tolerance (rangimarie), and hospitality or generosity (manaakitanga), and
- develop the ability to negotiate and reach consensus (pp.19-20).

Through this implicit curriculum the attributes of bullying can be addressed and new behaviours associated with the formation of positive social relationships learned and expressed. Wentzel (2003) argues that students must be able to achieve goals that result in social integration, social approval and social acceptance and that inherent in the pursuance of positive social outcomes is the motivation to behave in prosocial and responsible ways. From an ecological perspective there must also be present, those classroom conditions that support the development and expression of personal attributes and goal attainment.

Interventions

An area of debate in the arena of school bullying, is the extent to which anti-bullying policies target bullying directly or focus more generally on improving relationships within a school. This section moves from the perspective of a whole school policy to classroom climate, peer support systems, curriculum and then to the individual who is involved in the bullying behaviour.

Whole School Policy

A whole school policy is a document that sets out the school's aims with respect to bullying and the strategies to be followed. The document is supported by systems and procedures within the school to ensure that the document is effectively implemented (Smith, Ananiadou, & Cowie, 2003).

Classroom Climate

Classroom management has a direct impact on the prevalence of bullying behaviour in students and an indirect impact on bullying via the social structure. Roland and Galloway (2002) argue that the quality of the pupil-pupil relationships directly influences the rate of bullying and victimization in a classroom. In support of that idea, Cullingford and Morrison (1997) believe that peer group influence is an important factor in the expressed behaviour of a group's members. But while the group's values may support deviant behaviour, there are they suggest, the counter influences of home and school to mediate those values. The implications for teachers are clear. Are there systems within the classroom to support inclusion and is there a common set of social values representative of all students?

Peer Support Systems

There is evidence that peer support and emotional well being are associated with motivation at school. Perceived social and emotional support from peers has been associated with the pursuit of academic as well as social goals. Students who believe their peers care about them are more engaged in classroom life and pursue academic and

prosocial goals more frequently, than do students who do not perceive such support (Sage & Kindermann, 1999).

The transition to intermediate school necessitates the adoption of new structures, interaction with a larger number of peers, the ambiguity of multiple classroom environments, new instructional styles and more complex class schedules. As a result of this new framework, intermediate school students turn to each other for information, ways to cope and social support. Those students with positive peer supports are more likely to adapt to the new demands in a positive way than are those without such supports. Therefore, improving the quality of peer relationships should be paramount for teachers who work with students during the transition years of intermediate school (Wentzel & Watkins, 2002).

Peer influence and peer group programs have produced positive academic and rehabilitative environments. Peer group models have helped in the creation of positive living environments and in the reduction of aggressive behaviours in group settings (Tate, 2001). Peer group methods include 'A Circle of Friends' (Maines & Robinson, 1998) where a support team of peers work with a vulnerable student and 'Cool Schools' (The Peace Foundation, 1994), a peer mediation process where a neutral third party assists voluntary participants to resolve their disputes.

Curriculum

A developed curriculum can be part of a wider school focus where classroom discussions can both raise the awareness of bullying and generate rules to manage it (Chamberlain, 2003). In New Zealand the Health and Physical Education in the New Zealand Curriculum (Ministry of Education, 1999), Social Studies in the New Zealand Curriculum (Ministry of Education, 1997) and The New Zealand Curriculum Framework (Ministry of Education, 1993) documents provide opportunities to address the development of students' social skills. Within the classroom context an already extensive curriculum does not need to be expanded to incorporate the distinct teaching of social

skills, but rather ways need to be found to multi-task within the existing curriculum content. The co-operative learning teaching methodology provides such a link.

Individual

Roberts and Walter (2000) believe that on an individual level students need to be provided with alternatives to aggressive and maladaptive behaviour, that they must be educated about school and societal rules and held accountable for their actions. They believe that perpetrators of bullying behaviours be given the opportunity to explain their own logic and become familiar with alternative nonviolent ways of behaving.

While the 'whole school' approach is considered the most successful approach to bullying prevention, it does require advocacy from the whole school and so is more difficult to implement than is asking one teacher to incorporate a new curriculum. The degree of support required from teachers, parents and administrators sometimes precludes the option of a 'whole school' approach being accessed (Dake, Price, Telljohann, & Funk, 2003).

Interventions Used in New Zealand Schools

The approaches to dealing with bullying fall into two main classifications.

- Humanistic approach, where the focus is on problem solving rather than punishment.
- Punishment approach, where consequences or punishments are provided for the bully (Sullivan, 2000).

In New Zealand, the humanistic approach provides the focus for three major anti-bullying initiatives.

1. Cool Schools (The Peace Foundation, 1994). This peer mediation program is a negotiation based strategy that teaches student mediators strategies to help resolve conflict among their peers. Behaviour change is brought about by students helping to keep minor school conflicts from escalating into serious incidents.

2. Eliminating Violence – Managing Anger (Specialist Education Services, 1992) is a program that aims to increase a school's awareness about violence and manage it in a constructive rather than confrontational manner.
3. Kia Kaha (New Zealand Police Youth Education Services, 1999) is a whole school approach to bullying with the aim of creating an environment where everyone feels safe. The four kits that have been developed integrate into the school curriculum and cover Years 0 through to Year 13.

Characteristics of Effective Programs

Whether at a school or an individual level, effective intervention programs require options that focus beyond punishment and exclusion, which in themselves can contribute to a negative school climate (Peterson & Skiba, 2001). Reactive techniques do not provide for the development of effective and efficient social skills to counter maladaptive behaviours. (Rutherford, Mathur, & Quinn, 1998).

Interventions aimed at reducing these behaviour patterns characteristically focus on the behaviour of the individual student. Because behaviour patterns are influenced and supported by peer associations and school social structures, by simultaneously intervening at the student level and the context that supports the behaviour, Brigham and Kauffman, (cited in Farmer & Cadwallader, 2000) argue that it should be possible to realign the problematic developmental trajectories of maladapted youth. Farmer and Cadwallader (2000) also believe that the effectiveness of social skills training in changing behaviour is ephemeral unless the context for that behaviour change is supportive. Behavioural interventions, they maintain, should be used in combination with strategies that create a classroom and school climate supportive of the intervention.

Although single focus programs meet with success, the most promising interventions are multidimensional in nature. The nature and influence of the various systems that affect students' behaviour must be examined in developing bullying prevention programs. Given the complexity surrounding bullying prevention and intervention, efforts need to

take cognizance not only of the individual but of the peer group, classroom and the school (Espelage & Swearer, 2003).

Paradigm Shift

The fundamental premise of the ecological approach to bullying is the need to consider the whole context that the behaviour occurs in rather than dealing with the behaviour in isolation (Sullivan, 2000). Bullying can be conceptualized from a social-ecological perspective using Bronfenbrenner's (1979) ecological systems theory and from this construction, bullying is an ecological phenomenon that occurs over time as a result of the interplay between inter and intra-individual variables. Individual characteristics are jointly influenced by various ecological contexts including peers, peer groups, classroom and school factors (Espelage & Swearer, 2003). Set against this perspective, 'it is imperative that researchers and school personnel understand the complex ecological systems in which bullying and victimization occur. This ecology needs to be the foundation of prevention and intervention programs' (p. 372).

Anti-social behaviour and academic failure are context specific; both occur within an environment in which identifiable conditions can portend challenging behaviour and can be changed to reduce such behaviour (Mc Evoy & Welker, 2000). This means that in order to change the student, the interactional dynamic between the student and the environment must be altered, not merely the characteristics of the student. Indeed, the success of an intervention program is predicated on changing the context and thus the individual over time.

Conclusion

By reviewing the literature on bullying and the developmental approach to it, the need to shift from looking at the characteristics of the individual, to the characteristics of the environments that shape those individuals has been identified. Anti-social behaviour occurs within a climate in which identifiable conditions can be changed to reduce bullying behaviour. In order to change the individual, the interactional dynamic between the individual and the environment must be altered. Social interchanges that support

bullying behaviour are influenced by peer associations, classroom and school structures. By intervening at the level of peer associations the interactional climate of the class can be changed through the promotion of opportunities for participation, codetermination and conflict resolution. Resultant of this then is a class climate where physical and emotional safety is afforded.

CHAPTER THREE

CO-OPERATIVE LEARNING

This chapter discusses the use of co-operative learning as an ecological intervention for bullying behaviour within the framework of inclusive practice. The influence peer groups and classroom context have on this behaviour is explored and the need for peer group restructuring and social skill development using co-operative learning is presented. The research base for co-operative learning is discussed and a definition for this methodology provided. The Johnson and Johnson (Johnson, Johnson, & Holubec, 2002) and Kagan (1994) models of co-operative learning are outlined and the dilemmas that face teachers with the implementation of co-operative learning are posed. Finally, the co-operative learning program in this research project is outlined.

Co-operative Learning: A Bullying Intervention

An important implication of the ecological approach to bullying is the shift away from the characteristics of the individual to the characteristics of the environments that shape individuals (Mc Evoy & Welker, 2000). One of the most effective ways of inhibiting maladaptive behaviour is to regard the school as a community where each member is responsible for themselves and for the well being of others. The school could reflect the community it operates within and society at large, by requiring co-operative input from the overlapping groups that function within it (Besag, 1993).

Peer Influence

Peers hold significant influence over each other in the promotion of prosocial or deviant behaviour (Hartup & van Lieshout, 1995) and for students in classrooms where aggression is normative there is a propensity for them to become even more aggressive (Rodkin & Hodges, 2003). Adolescents segregate themselves into subgroups hierarchically. The subgroups at the top are admired while the subgroups at the bottom are harassed or excluded. For those at the bottom exclusion comes at a time when the need for inclusion is the greatest. To help prevent bullying, educators must endeavor to

alter the process that students use to form subgroups and so alter the promotion of isolation (Kagan, 2001). Rodkin and Hodges have suggested peer group restructuring as a model for intervention. The intensity of peer social ties and the quality of the social relationships in a classroom are critical for an overall class climate where physical and emotional safety is afforded (Holtappels & Meier, 2000).

Classroom Climate

Students who have a repertoire of anti-social behaviours do not develop a sense of community within their classroom and seek out the company of others who are equally unskilled to form deviant peer groups, characterized by negative reactions towards adult authority and school. Students who express antisocial behaviour need:

- a) to be taught how to control their environment through prosocial behaviour rather than through aversive techniques,
- b) to develop a sense of 'belonging' in the classroom, because in feeling accepted they will be less inclined to seek out deviant peer groups, and
- c) structured co-operative learning activities to allow for the development of social skills in the context of a reinforcing peer community (Quinn & Jannasch-Pennell, 1995).

A whole class design for teaching social skills to address the above, also allows for multiple peer role models and attenuation in the stigma that is often associated with interventions targeted at a specific individual.

Studies investigating students' perception of classroom environment reveal that the actual climate present differs from that preferred by pupils (Mac Aulay, 1990). The interactional climate of a classroom can make for opportunities for participation, codetermination and conflict resolution centred on discussion or it can rely on coercive and restrictive rules to maintain order (Rodkin & Hodges, 2003). When cohesiveness and co-operation characterize the classroom environment students are more able to maximize their cognitive, affective and social potential (Mac Aulay). While schools have provided opportunities for students to work together co-operatively, these have been biased towards academic goals rather than social outcomes. A co-operative learning situation could involve students working in a democratic manner, socially as well as academically,

towards a mutual goal of solving a curriculum query or emotional problem (Besag, 1993).

Implicit or Explicit Curriculum?

The two distinct approaches to promoting an inclusive school community are curricular and instructional. Curricular, or explicit approaches, involve instruction within the existing curriculum, while instructional or implicit approaches focus on how teachers teach. Kagan (2001) argues that the implicit curriculum is as influential as the explicit curriculum, that how teachers teach is as important as what teachers teach.

The explicit and implicit curriculum can be mutually inclusive. While teaching social skills distinctly, teachers can use instructional strategies like co-operative learning to promote and practice the skills. As well, embedded within the co-operative learning methodology are the skills of socially responsible behaviour in the form of helping and the sharing of information.

Research Base

Cooperative learning is a well researched, highly successful teaching methodology that has been shown to increase academic achievement and prosocial development (Goodwin, 1999). It is also one of the most distinguished of all instructional practices (Johnson, Johnson & Stanne, 2000), there being more studies on co-operative learning than on any other teaching methodology (Brown & Thomson, 2000). Co-operative learning makes sense in inclusive classrooms; because one of the attributes of the methodology is that it formalizes and encourages peer support and connection (Sapon-Shevin, Ayres, & Duncan, 1994).

Despite the extensive research base co-operative learning has as a teaching methodology and as a method of developing social skills, there is little evidence available for its efficacy as an intervention for bullying, or on the long term effects of co-operative learning. However, a study by Gillies (2002) investigating the maintenance of co-operative learning behaviors after two years, found that the positive benefits of working

co-operatively had been appreciably maintained. Conversely, a study by Cowie, Smith, Boulton, and Laver (1994) investigating the effects co-operative work had on bullying and negative behaviour immediately after an intervention, found no difference between the classes where co-operative learning activities had been implemented and the control classes. These two studies do not in themselves constitute sufficient evidence for inferences to be drawn and further research is required to confirm such effects.

Definition of Co-operative Learning

In co-operative learning activities heterogeneous groups of students work together towards a common goal (Goodwin, 1999) and are responsible for each other's learning as well as their own. Each team member is held accountable for his or her own learning and contributing towards the group goal (Slavin, 1996). In co-operative learning classrooms students know that, 'they belong and have a unique contribution that is necessary for the success of the group. Conversely, these communities also show students that those who are different from them belong and have unique contributions to make to the group as well' (Quinn & Jannasch-Pennell, 1995 p. 27). A vital component and imperative prerequisite for academic learning is the teaching of social skills. In co-operative learning the social skills learned include the concepts of communication, building and maintaining trust and conflict management (Johnson, Johnson, & Holubec, 2002).

Co-operative Learning Models

Within the generic model some differences in technique have emerged, but there are certain elements that are common to all the approaches. While some models address the need for higher order thinking skills, others attempt to systematize the co-operative structures or use the methodology within specific strategies (Brown & Thomson, 2000). The element that makes a task co-operative is the dependence on other members to complete it (Baris-Sanders, 1998). In a co-operative environment students are grouped together heterogeneously and work collectively towards a common goal. Each team member may be assigned a role and is accountable for both personal learning and contributing to the group goal (Marr, 1997).

Johnson and Johnson Model

In the co-operative learning model proposed by Johnson and Johnson (Johnson, Johnson, & Holubec, 2002), there are five elements that are needed for an activity to be co-operative.

1. *Positive interdependence* is the notion of working in such a way that each group member needs the others for task completion.
2. *Individual accountability* happens when each member of the group is held accountable to do their share of the work. Students learn together so they can subsequently perform higher as individuals.
3. *Face to face interaction* occurs when individuals promote each others success by assisting and encouraging each other's efforts to achieve. Certain cognitive activities and interpersonal dynamics only occur when students promote each other's learning.
4. *Small group skills* are needed for effective group work. The skills of leadership, decision making, trust building, communication and conflict-management need to be taught just as precisely as academic skills.
5. *Group and individual reflection* teaches groups how to analyze their own functioning. They need to be able to identify, define and solve problems that preclude their being able to work together effectively.

While each of these elements is important, it is a combination of the five within a lesson that makes co-operative learning highly influential on student learning.

Within this model the small group skills that allow groups to work effectively are recognized within a hierarchy described by Johnson and Johnson (cited in Brown & Thomson, 2000) as the '4Fs'. The first level of 'forming' involves the skills needed for groups to work together, 'functioning' concentrates on communicative skills, while 'formulating' and 'fermenting' together involve higher order thinking skills.

The Structural Approach – Kagan

Kagan (1994) offers a more highly structured approach to co-operative learning than do Johnson and Johnson (Johnson, Johnson, & Holubec, 2002). These co-operative structures are content free procedures that prescribe student actions step by step. They can be used in combination with other teaching methodologies, or form a complete lesson on their own. For a structure to be co-operative it must have these four basic principles.

1. *Positive interdependence* occurs where the gains for one student are associated with gains for the other students in the group.
2. *Individual accountability* holds each individual accountable for his or her contribution to the group work.
3. *Equal participation* among the students in the group is comparatively equal.
4. *Simultaneous interaction* involves concurrent interaction among students at any one time.

Brown and Thomson (2000) describe this teaching-learning process as a division of three parts: the structure, the content and the activities that are the result of the content and structures brought together. When curriculum content is added to a structure, a co-operative learning activity results. However, in order to work together students must have the social skills necessary to co-operate. Kagan's (1994) structured approach to social skill development is direct teaching that includes modeling, reinforcing and reflecting on the skill. 'All the social skill problems the students are having are educational opportunities. Every social skill problem is an important piece of curriculum not yet acquired' (p 14:3). Kagan points out, that teaching social skills as a distinct addition to the regular academic curriculum would be overwhelming, but when incorporated within a co-operative learning activity the task becomes manageable and he furthers this idea by suggesting that in using this approach teachers actually cover more of the curriculum than those who do not.

Co-operative or Competitive Learning Experiences?

The purpose of cooperative learning is for students to maximize both their own learning and each other's. This is in contrast to competitive activity where individual pursuit and

interest is at the expense of others and where achievement is independent of others (Porter, 2000). The methods of co-operative learning are different from the traditional *modus operandi*, with the emphasis in co-operative learning on peer interaction over the conventional teacher-student interaction (Baris-Sanders, 1998). As a result of the collaborative nature of co-operative learning, students develop greater higher level thinking skills and show greater prosocial behaviour and on task behaviour, than their peers in individualistic learning environments (Marr, 1997). Kagan (1994) suggests that teachers provide as broad a range of learning experiences as possible. A balance between co-operative, competitive and individual learning experiences, he maintains, would better prepare students to adapt and modify their social surroundings and prepare them to function across a wider range of life settings.

Teacher Dilemma

‘Despite the academic vogue of cooperative learning and the efforts at dissemination made by its proponents, it remains an instructional strategy seldom used in a systematic manner over the course of a school year or more’ (Rich, cited in Kohn, 1992, p. 39). Kohn believes that while this might be an overstatement, enough repudiation of the strategy is taking place to necessitate a systematic analysis of why this might be so.

Kohn has identified two headings for that analysis:

1. inferior presentation of the concept, and
2. incongruity with the beliefs teachers hold.

1. Inferior Presentation of the Concept

Co-operative learning correctly understood, requires a reconceptualization of what learning involves and how people relate to each other. As a result, problems and questions often appear. Male (cited in Kohn, 1992) has estimated that only 5% to 10% of teachers will continue to use co-operative methods without ongoing coaching and support. The consequence of ‘inadequate’ training therefore is the inability to address the issues and problems that appear only after implementation. Inferior presentation or

fidelity to the methodology, by way of dilution of the concepts to make presentation easier, often results in unsatisfactory outcomes (Kohn, 1992).

2. Incongruity With Teacher Belief

Because co-operative learning is a different way of approaching learning it can be viewed as threatening with the reduction in teacher control and predictability of outcome.

Co-operative learning challenges a teacher's absolute power in a classroom with the move from teacher directives to student decision making. In a cooperative classroom the decision making power no longer belongs just with the teacher. With the teacher as a guide, rather than the only source of information, there is the introduction of uncertainty rather than predictability in outcome. Some teachers find these changes present a disequilibrium that cannot be resolved (Kohn, 1992).

Co-operative learning is a complex teaching methodology that presents a challenge to teachers because of the need for fidelity of presentation and congruity with teacher belief. Because of this, a high level of coaching and support is required for effective implementation. The role of the Resource Teachers: Learning and Behaviour (R.T.L.B.) is to work with others as agents of change for the students they support. This involves work primarily with teachers and the development of teacher knowledge and skills to effect classroom environments that reflect inclusive practices.

The concept of inclusive education is one where all students are provided with appropriate educational programs that support their needs and assist them to be successful. An inclusive school is a place where everyone belongs, is accepted and is supported by his or her peers in the course of having his or her educational needs met (Stainback & Stainback, 1990). Co-operative learning, as an inclusive teaching methodology, is an appropriate tool for use by R.T.L.B. to address the classroom context and thus the learning of the students within it.

The Co-operative Learning Program

The purpose of the co-operative learning program (C.L.P.) in this research project was to investigate if co-operative learning could be used as a class wide intervention to reduce bullying behaviour.

This class wide C.L.P. was designed to:

- enable the students to learn the social skills of working with and getting on with each other to provide a skill base for improved interaction and a context where students would have learned to view situations or problems from perspectives other than their own,
- provide opportunities for peer interaction to model prosocial behaviour, and
- provide a scaffolded learning environment to improve academic outcomes and thus a feeling of self worth.

Program Outline

The 10 week, 30 session C.L.P. (see Appendix A) was conducted as part of the routine written language and social studies program of a Year 7 and 8 class. Three sessions were planned for each week and the skills learned in each session were to be practised prior to the next session. The program design comprised elements from both the Kagan (1994) and Johnson and Johnson (Johnson, Johnson, & Holubec, 2002) models. The Kagan structures were used to provide a vehicle for curriculum content and to ensure 'equal participation' through the prescribed interaction of the structure. The Johnson and Johnson model was also adopted for the element of 'group and individual reflection'. In this element, either the group or individuals identify and solve problems that preclude their being able to work together, or recognize those aspects of their behaviour that allow for the smooth running of the group. Brown and Thomson (2000) consider both the Kagan and Johnson and Johnson models 'totally compatible and when employed together can be used successfully to support each other' (p. 42).

The Kagan (1994) structures used began with simple two person groupings and increased in complexity of task over the course of the C.L.P. to end with structures involving four

students. Throughout C.L.P. both small group co-operative skills (Johnson, Johnson, & Holubec, 2002) and task and working relationship skills (Kagan) were developed. This began with the small group co-operative skills necessary for effective working relationships, such as 'using quiet voices' and 'asking questions' through to learning how to integrate a group's ideas into a single position. Within the domain of task and working relationship skills, the development moved from 'acknowledging contributions' and 'encouraging others' through to developing the notion of 'keeping things calm and reducing tension'. The program was designed to start with simple structures and social skills and over the course of ten weeks move to more complex structures and skill development.

At the beginning of the C.L.P. group assignment was teacher instigated and progressed through to random selection and finally to student selection. Student choice was contingent on their association with different students each time a group was formed. A tracking sheet was provided to help facilitate this.

For groups to work together effectively they need to know how to co-operate and the skills for this need to be taught explicitly. The use of 'T' charts (Brown & Thomson, 2000), teacher modeling, reinforcing and reflecting on the skills was planned and in each session time was given for this development.

Because reflection is a crucial part of self-evaluation and a key to quality work (Brown & Thomson, 2000) group or individual student reflection was planned for the conclusion of each session. Oral feedback to the teacher or each other was part of the planning for the subsequent session. As each group interacted differently so their group (or individual) goals reflected this difference.

Because of the complexity of this teaching methodology teacher training and support was given throughout the C.L.P. Planning was effected by the teacher and researcher together and modeling of the process by the researcher took place every session. As problems or questions arose they were addressed by the researcher in collaboration with the teacher,

as experience and an in-depth knowledge base is required for co-operative learning to be implemented successfully.

The use of co-operative learning provides a vehicle by which inclusive education can be achieved and success for students gained.

The best way to prevent school violence is to replace disparagement with respect, exclusion with inclusion and isolation with collaborative community. When teachers use co-operative structures in daily instruction, students experience being cared for by peers and caring for others. They practise responsibility, fairness, tolerance, teamwork, understanding and respect for different points of view. They learn to help one another...and become an inclusive "we". (Kagan, 2001, p. 54)

Conclusion

When teachers embed inclusive teaching methodologies into their classroom practice, students become more caring and respectful of each other. School environments do not always foster student empathy and frequently students are bereft of the skills to behave otherwise. Unless these skills are taught, change is unlikely. Gillies (2002) believes that students untrained in co-operative learning do not establish the interpersonal skills and are less attuned to each others' needs than are those who have been exposed to this inclusive practice. Johnson and Johnson (1999) also believe that co-operative learning helps in a student's interpersonal relationships and that the experience of positive social support reduces the risk of violent behaviour.

With the peer group being used increasingly for behaviour definition in pre-adolescents (Besag, 1993), the development of positive peer relationships assumes even greater importance. Those students who develop positive peer relationships generate more solutions to problems and propose more mature solutions than do those who have negative peer relationships (Tate, 2001). It cannot be assumed that students will acquire social skills simply by watching their peers. Social learning, like academic learning needs to be structured and taught in a context supportive of it (Jordan & Le Metais, 1997).

Information on bullying in New Zealand is sparse (Adair, Dixon, Moore, & Sutherland, 2000). While there is evidence that co-operative learning results in improvements in both the achievement of students and in the quality of their interpersonal relationships (Slavin, 1991), limited research is available for the use of co-operative learning as an intervention for bullying behaviour.

The ecological paradigm recognizes that student behaviour is the result of the interaction between the student and the learning context and that change occurs as a result of changes in this interrelationship (Thomson, Brown, Jones, & Manins, 1999). One of the R.T.L.B. Professional Standards (Ministry of Education, 2001) require R.T.L.B.s to have expertise in inclusive teaching programs and that they support classroom teachers in the practise of those programs. Co-operative learning is a teaching methodology that addresses both social skill development and thus behaviour change and the Ministry of Education requirements for inclusive practice.

The review of the literature that highlights the effectiveness of co-operative learning as a teaching methodology for improving interpersonal relationships and the sparsity of literature available for its use as an intervention for bullying behaviour led me to carry out this study. In my role of R.T.L.B. I have observed the effectiveness of co-operative learning in both the social and academic domains. The social benefits include more on task behaviours and more friends and involvement in classroom activities. Co-operative learning is also successful in promoting inclusion for those students with disabilities because of the empathy generated through working together and becoming dependent on each other. I have observed co-operative learning reduce student alienation and social isolation. I was therefore interested to explore this methodology as an intervention to reduce bullying and increase peer interactions in the classroom.

CHAPTER FOUR

METHODOLOGY

Introduction

This chapter sets the purpose of this research and outlines the research questions. It provides definitions of the terms used and the research design framework. It concludes with a description of the methods used for the data collection and analysis.

Aim

The purpose of this study is to evaluate the effectiveness of a 10 week co-operative learning program, for increasing positive peer interactions and decreasing bullying behaviours, in a Year 7 and 8 classroom.

Research Questions

Question One

Does the introduction of a 10 week whole class co-operative learning program in written language and social studies, result in a wider range of peer interactions and relationships, than prior to the program?

Question Two

What impact does a 10 week co-operative learning program have on student and teacher perceptions and reports, of bullying behaviour in the class?

Question Three

What impact does a 10 week co-operative learning program have, on the perceptions and reports of bullying behaviour in the playground, among students in the class?

Operational Definitions

Bullying behaviour.

Although a number of descriptors for bullying behaviour exist in the literature, for the purpose of this study, the behaviours listed in the Sullivan (2001) questionnaire are used (see Appendix B).

Peer interactions and relationships

Students' choice of group as measured by observation when in a situation of free choice (both in and out of the classroom) and a sociogram (see Appendix C).

Co-operative learning

Co-operative learning is a teaching methodology in which students work together in an interdependent fashion in groups of two or more. The goal orientation is common to the group and success is judged by how well the group ensures all members are included and learn as well as possible (Brown & Thomson, 2000).

Co-operative structures

These are step by step instructional strategies that are a content free way of organizing the interaction of individuals in a classroom. Embedded within the structures are both "task" and "working relationship" skills (Kagan, 1994).

Overview of Study

The study was conducted under naturalistic conditions, class wide, in an intermediate school. The study was designed to place emphasis on the implicit curriculum and the use of co-operative learning as a teaching methodology to develop an inclusive classroom climate where students respect one another and work together to help each other. The study was intended to investigate whether co-operative learning would increase peer interactions within the class and as a result, decrease the bullying behaviours perceived by those students. The 10 week C.L.P. was designed to be implemented by both the teacher and the researcher.

Research Design

Following best practice proposed by Merrell (2001), a multi-method, multi-source, multi-setting design was used. The questions being asked in this study involved examining the effect of a particular teaching methodology across a whole class setting, so the design chosen for this study was pre-experimental (one group pre-test / post-test) using a case study approach, where both qualitative and quantitative data were collected. Yin (cited in Anderson, 1997) defines a case study as an empirical enquiry that:

- a) investigates a contemporary phenomenon within its real life context when,
- b) the boundaries between the phenomenon and context are not clearly evident and in which,
- c) multiple sources of evidence are used (p.158).

The pre-experimental design was chosen because of the inability to control all the variables inherent within a complex classroom situation. Quantitative data were collected to provide statistics as a measurement of the students' attitudes and behavioural states, while qualitative data were collected to explore meaning. The two methods were used in unison to provide measurement for comparison and evaluation and for in depth explanation. Jick (cited in Creswell, 1994) believes that, "any bias inherent in particular data sources, investigators or methods, would be neutralized when used in conjunction with other data sources, investigators and methods" (p.174). The advantage of this design is that data from multiple perspectives were used and that data from different sources were combined to provide reliability, validity and triangulation. Data were collected pre and post program using the same instrumentation.

The C.L.P. was conducted as part of the routine written language and social studies program of a Year 7 and 8 classroom. The intervention was planned to take place in three sessions per week over a 10 week period. The planned introduction of co-operative learning into the classroom began with simple paired co-operative structures and then increased in both group skill and complexity of task as the students became more skilled. The researcher arranged joint planning meetings with the teacher to provide both coaching and mentoring. The intervention was modeled by the researcher and implemented jointly by the researcher and the teacher.

Setting

An intermediate (Year 7 & 8) state school situated in a provincial town provides the setting for this study. The total enrolment for the school is 480 students.

The demographic make up of the school is as follows:

Maori	17%
Pakeha	82%
Others	1%

The school has 18 full time teaching staff and two part time teachers. The school offers those students identifying as Maori, the opportunity of being part of a bi-lingual class and a Maori kaiako coaches students in both kapa haka and tikanga Maori. Attached to the school is a technology centre employing nine teachers and serving both the intermediate school and contributing schools. The student population is drawn from all the contributing primary schools serving this provincial town giving the school a decile rating of seven. A Resource Teacher: Learning and Behaviour unit is based at the school. The school has a policy of “zero tolerance” towards bullying and has a discipline system and a teacher offering student counseling to support this. There are no school-wide anti-bullying programs offered, but Skills for Adolescents (Quest International, 1999) and Kia Kaha (New Zealand Police Youth Education Services, 1999) are used at teacher discretion.

Participants

The participants in this C.L.P. were the classroom teacher and a class of 30 students of whom nine were identified as target students.

Class Of the 30 students 4 were of Maori descent and the rest Pakeha. The class make up included a range of academic ability and social competence. This class as well as all other classes in the school are composite classes of both Year 7 and Year 8 students. At the end of the school year, the Year 7 students stay together as a class, to be joined the following year by incoming Year 7 students. The incoming students fit around a framework of friendships developed by the Year 7 students the previous year.

Teacher The teacher was Pakeha in her sixth year of teaching, the last three of those being at this school. The teacher did not have any specific training in co-operative learning and when asked before the C.L.P. explained 'it is students interacting in pursuit of a common goal'.

Target Students Qualitative sampling is concerned with information richness. It requires the identification of those participants who can best inform the study (Fossey, Harvey, McDermott, & Davidson, 2002). Data were taken for all students, but target students (those who could best inform the study) were selected as a cross section of the class, for more detailed data collection to provide 'information richness'. The students selected as target students included those, who from the sociogram were identified as:

1. Isolate students. One who chooses but receives few choices.
2. Clique students. A subgroup of students who only select each other.
3. Popular students. One who receives many choices but chooses few.

Three students from each of these identified groups were selected to interview and observe in the playground. Nine students were selected at the beginning of the program and six remained at the completion of the study. Of those six students; three were classified as 'isolate', two were classified as belonging to a 'clique' and one of the students was classified as being 'popular'.

Procedures

Official Approval

The Ethics Committee of Victoria University granted ethics approval for this study. Confidentiality was assured to the participants by including a confidentiality statement in the information sheet sent to all:

- a) parents/caregivers (see Appendix D),
- b) students in the class (see Appendix E and Appendix B),
- c) parents/caregivers of the target students (see Appendix F),
- d) target students (see Appendix G), and
- e) class teacher (see Appendix H).

Informed Consent

A consent form for their approval to take part in the study was sent to:

- a) parents/caregivers of the target students (see Appendix I),
- b) target students (see Appendix J), and
- c) class teacher (see Appendix K).

The target students were briefed about the study and all parent/caregiver questions were answered.

Phases of Study

Pre-intervention

The teacher had been requested at the beginning of the year not to provide the students in the class with any extra cohesive activities other than what would normally be provided at the beginning of the year. One week immediately prior to the intervention in March, all baseline data were collected.

The questionnaire and sociogram were given on two different days. The instructions for the completion of these instruments were given by the teacher and all the students' questions were answered. The completed instruments were then collected by the researcher.

The observations were completed over the course of one week. The two classroom observations took place at the beginning of the day and the playground observations during the interval and lunchtime breaks of that week. The teacher completed the event record from her daily observations of bullying behaviour and the event record was then given to the researcher.

The interviews with the target students took place individually outside the classroom to ensure confidentiality. The teacher interview and teacher report were completed subsequent to each other on the same day.

Intervention

At the beginning of each week a collaborative meeting was held between the teacher and researcher. At this meeting the researcher provided the teacher with relevant literature on the component of the intervention to be implemented during that week. Joint planning

was also completed during this meeting. The C.L.P. was presented jointly by both the teacher and the researcher and included both teacher and researcher together, modeling aspects of the methodology for the students. At the conclusion of each session, the teacher and researcher reflected to evaluate the session and identify those factors that either hindered or helped the functioning of the lesson. Subsequent planning took cognizance of these reflections.

Post-intervention

In the week immediately following the completion of the C.L.P. in September, the same data were collected following the same procedures as in the pre-intervention phase. Additional information was obtained from the teacher in the *Teacher Evaluation of Co-operative Learning* questionnaire given to the whole class at the end of the program. This questionnaire was generated spontaneously by the teacher and the student responses to the questions were anonymous.

Data analysis

Questionnaire The numerical rating for each item was totaled, the average calculated and a comparison made pre and post intervention.

Sociogram The data were analyzed according to the following categories: reciprocated friendships, negative friendship, definitely a leader, part of a group and outside of a group.

Playground Observations The data were analyzed for patterns of behaviour.

Classroom Observations The numbers of students sat by pre and post program were compared.

Teacher Event Recording of Bullying Behaviour The numbers of incidents for each type of observation were compared pre and post program.

Teacher Report The key points of the responses to each question were compared pre and post program.

Teacher Interview Pre and post data were analyzed for shifts in response.

Target Student Interviews A thematic analysis was used and the data analyzed for either patterns or distinctions between the data.

Teacher's Evaluation of Co-operative Learning Responses to each question in this questionnaire, developed by the teacher to evaluate the program, were collated and then examined for common themes. *

Instruments

The study used nine data sources to address the research questions. The relationship between the data sources and the questions asked can be seen in Table 1.

Table 1
Relationship between data sources and research questions

Q	<u>Sociogram</u>	<u>Teach Rept.</u>	<u>Classroom Observation</u>	<u>Playground Observation</u>	<u>Interviews Target St.</u>	<u>Questionnaire (Sullivan)</u>	<u>Teacher Interview</u>	<u>Teacher Event Recording</u>	<u>Evaluation Co-operative Teacher *</u>
1	√	√	√	√	√		√		√
2					√	√	√	√	
3				√	√	√	√	√	

* Shaded area indicates data source, additional to researchers

Question One:

Does the introduction of a 10 week whole class co-operative learning program in written language and social studies, result in a wider range of peer interactions and relationships, than prior to the program?

Question Two:

What impact does a 10 week co-operative learning program have on student and teacher perceptions and reports, of bullying behaviour in the class?

Question Three:

What impact does a 10 week co-operative learning program have, on the perceptions and reports of bullying behaviour in the playground, among the students in the class?

* Data source, additional to researchers.

1. Questionnaire

Rationale Data to investigate student observations and reactions to situations of bullying were collected using a self administered questionnaire (see Appendix B). The advantage of questionnaire use as a method of data collection is that it permits the collection of routine data from a large number of respondents, as is found in school classrooms (Anderson, 1997). Also, the confidentiality afforded by use of questionnaires probably increases the truthfulness of responses (Gay, 1987) and the results of the first survey can be used for comparative purposes (Sullivan, 2001).

Description of Instrument The questionnaire was selected because Sullivan (2001) is a well known researcher and the questionnaire was developed in a New Zealand context.

The questionnaire consisted of four parts:

- a) type of bullying,
- b) bullying undertaken personally,
- c) bullying seen or heard, and
- d) identification of the places bullying occurred.

The closed form questionnaire required students to choose from the ranked responses; never, once in a while, about once a week, more than once a week, for each of the eleven descriptors in parts (a), (b) and (c). The ranked statements provided for ease of understanding by the students and ease of generating statistics by the researcher.

Part (d) of the questionnaire asked for self generated responses to identify parts of the school where bullying was most likely to occur.

The post-intervention questionnaire contained a section at the end asking if bullying had increased in the class. This required a 'yes' / 'no' response. A response of 'yes' then required an explanation as to why this might be so.

Method of Data Collection All data were collected one week prior to the intervention.

Students were given the questionnaire at the same time and an explanation for the completion of the form was given by the teacher. The form was read through prior to commencement to help the students with lower reading skills and all questions were answered to ensure understanding. The students' desks were separated to help ensure

confidentiality. Thirty minutes was allowed for the completion of the questionnaire. The students completed the same questionnaire at the conclusion of the intervention under the same conditions as above.

Data Analysis

The data were collected under the categories; happened to the student, the student had done to others or that the student had observed happening to others. The 33 items in the questionnaire attracted ranked responses of 1 (never), 2 (sometimes) and 3 or 4 according to the intensity of the response. The numerical rating for each item was then totaled, the average calculated and a comparison made for each item of the questionnaire pre and post C.L.P. The results were analyzed for statistical significance using the Sign test (Leach, 1979, pp. 120-21).

2. Sociogram

Rationale The data to investigate student preferred and existing relationships within the classroom were collected using a peer nomination without ranking sociogram (see Appendix C). Because sociometry is a phenomenological study of other people's interpersonal choices (Treadwell, Kumar, Stein, & Prosnick, 1998) this method of data collection was used to evaluate the range of interactions and relationships between the students. Johnson and Ironsmith (1994) report that sociometric measures offer relatively reliable and valid measures of student's peer group status and have been demonstrated to have predictive validity of future social outcomes.

Classrooms develop structure over time and the two important questions about that structure are: how quickly the group structure forms and how stable it is over time? The answers to these questions have important implications for intervention strategies (Johnson & Ironsmith, 1994). Understanding that stability or change, is helpful, in assessing the reliability of an intervention. The sociogram used was an adaptation of Sullivan's (2001) because of the New Zealand context and because Sullivan is a well published researcher in the area of bullying.

Description of Instrument The questionnaire involved asking the students to respond to friendship questions that asked who they would like or not like to be with and who they did or did not get on with. Up to five nominations were made in the category 'best friends' and up to two nominations in the category 'don't get on with'. Because of the size of the group, allowing only up to five choices made the data handling and analysis easier than if allowing unlimited choice. Moreno (cited in Treadwell, Kumar, Stein, & Prosnick, 1998) suggests that restricted or unlimited choice makes no difference in who will receive the highest first choice. The 'best friends' category identified reciprocal relationships (cliques) popular students (those who are chosen but make few choices) and isolates (one who chooses but receives few choices). Popular students and isolate students reflect a one-way pattern in relationships. The 'don't get on with' category identified the rejected students. The informal status question required the students to place each student's name within one of three groups; definitely a leader, part of a group or on the outside of a group. The questionnaire contained a class list of student names to facilitate this.

Method of Data Collection All data were collected one week prior to the C.L.P. All students were given the sociogram at the same time and an explanation for the completion of the form was given by the teacher. Questions were answered by the teacher to ensure understanding by the students. The students' desks were separated to help ensure confidentiality. Thirty minutes was allowed for completion of the questionnaire. The students completed the same questionnaire at the conclusion of the intervention under the same conditions as above.

Data Analysis The data were analyzed according to the following categories:

- a) reciprocated friendships,
- b) negative friendship,
- c) definitely a leader,
- d) part of a group, and
- e) outside of a group.

Reciprocated friendship was determined by comparing peer responses to the questions:

Which students in the class are your best friends?

Who is your best friend?

Reciprocity was calculated where there was a two way pattern of nomination.

Negative friendship (not liked) was calculated by totaling the peer responses to the questions:

1. Name up to 2 people you don't get on with.
2. Who is the person you don't get on with most of all?

Definitely a leader was calculated by totaling the number of nominations to that question.

Part of a group was calculated by totaling the number of nominations to that question.

Outside of a group was calculated by totaling the number of nominations to that question.

All data were compared pre and post C.L.P.

3. Observations

Rationale To achieve a multi-setting assessment three observations were conducted across three different settings:

- a) classroom observations,
- b) teacher event recording of bullying behaviours, and
- c) playground observations of target students.

Elliott and Gresham (1987) have suggested that 'analyzing children's behaviour in natural settings... is the most ecologically valid method of assessing children's social skills' (p. 96). For the assessment of students' social skills using naturalistic behavioural

observation, the most appropriate settings are those where students commonly interact with their peers, thus schools are particularly relevant places for this to happen (Merrill, 2001). Direct observations provide insight into student interaction patterns, as well as social and behavioural competence (Salend, 2000). It is also a means of discovering whether students are doing that which they claim to be doing (Bell, 2001).

Description of Instrument Naturalistic behavioural observation does not require the use of specific instruments, instead it relies on observational protocols constructed by the observer and is designed specifically to meet the assessment needs of the situation (Merrill, 2001).

a) Playground Observations of Target Students

A partial-interval recording procedure was used. The observational period was divided up into time intervals for the recording of specified behaviour that occurred at any point during the interval. The type of social interaction that the target student was involved in was recorded for each observation interval. The notes were descriptive and derived from watching; they captured the details of the behaviour and where they occurred. After the observation, the data were transferred to a summary sheet (see Appendix L).

b) Classroom Observation

Data were collected on student preference of seating arrangement during free choice 'mat time' in the morning. The researcher noted with whom students sat during that period of classroom instruction.

c) Teacher Event Record of Bullying Behaviours

An event recording procedure was used. The one week recording form was divided into five sections to represent each day of the week and each day was subdivided into time allotments to represent the daily timetable of the school. The teacher was required to document each bullying behaviour under one of the following three categories: observed, reported or suspected and the name of the student the behaviour was attributed to. Descriptors of the bullying behaviours are listed in Appendix M. A one week record was maintained pre and post C.L.P.

Method of Data Collection

a) Playground Observations of Target Students

All data were collected in the one week interval prior to the intervention and again at the conclusion of the intervention. The data collected were from two 20 minute observations;

one at morning break and one at lunchtime. The observations were divided into two minute intervals; 90 seconds observation and 30 seconds recording. The observations were reported anecdotally, on the activity, the location and the interaction partner/pattern. Observer reactivity was countered by being 'seen' as taking part in the school's supervisory role during out of class time.

b) Classroom Observations

Data were collected from two observations, in the week prior to the intervention and in the week subsequent to the intervention. The researcher observed and noted the student self chosen seating arrangements for all the students in the class. All observations took place at the beginning of the sessions, to allow for subsequent movement of students at the teacher's discretion.

c) Teacher Event Recording of Bullying Behaviours

All data were collected in a one week interval prior to the C.L.P. and again at the conclusion of the C.L.P. for all students in the class. The class teacher noted all bullying behaviours as defined by the schedule and entered them onto the recording form together with the student's name whose behaviour it pertained to.

Data Analysis

a) Playground Observations of Target Students

Data from the observation schedules were analyzed for patterns of behavior e.g. the extent to which students chose to interact with their peers, the length of interaction within a group, their position within a group and the activities undertaken. All data were compared pre and post C.L.P.

b) Classroom Observations

The purpose of these observations was to determine if the students had chosen a wider range of peers to interact with as a result of the C.L.P. The data were collected by the researcher who noted who the students sat with over two sessions, pre and post C.L.P.

The data for each student were then totaled and the number divided by two to yield an average score. The pre and post data were then compared.

c) Teacher Event Recording of Bullying Behaviour

The numbers of incidents for each type of observation were calculated and all data entered onto a summary sheet to allow for comparison of data. Data were analyzed for:

- a) student involvement (were the same students involved),
- b) type of observation (were the behaviours more or less overt),
- c) number of bullying incidents observed, and
- d) time of the day, curriculum subject or place the bullying incidents occurred.

All data were compared pre and post C.L.P.

4. Interviews

Rationale The interview is an appropriate structure for asking questions that cannot be elicited in a multiple choice format such as a questionnaire (Gay, 1987). An advantage of interviewing to assess social behaviours, is that it is able to provide relevant and functional information about the environment in which the behaviours occur and so can be linked effectively to intervention (Merrill, 2001). It provides understandings specific to the interviewee but goes beyond the specific to provide insight into the meaning people make of their experience (Dilley, 2004).

Description of the Instrument Elite interviews (Anderson, 1997) were used to explore the views of the teacher and the target students, from whom more in depth data were required than from the other members of the class, as these respondents had particular knowledge and experience about classroom interactions and peer groupings. In all the interviews a semi structured format was used to facilitate a focused exploration of the subject. Questions were developed to focus each interview and the conversational style maintained flexibility.

a) Teacher Report

The interview used open ended, direct questions to collect data on the teacher's beliefs and understanding of student relationships and groupings in the classroom. Specifically the questions asked were:

1. What have you observed about the relationships in the classroom?
2. What have you observed about the friendship groups in the classroom?
3. What are the main friendship groups in the classroom?

To allow comparison, the same schedule of questions was used at the conclusion of the C.P.L.

b) Teacher Interview

The teacher interview was conducted subsequent to the teacher report and followed the same protocol. In this interview four questions were asked:

1. How do you perceive bullying behaviour in the classroom?
2. What do you understand by co-operative learning?
3. Why use co-operative learning?
4. What do you expect to get from co-operative learning?
5. What was the effectiveness of the program?

To allow comparison, questions 1, 2, 3 and 5 were asked at the conclusion of the program.

c) Target Student Interviews

Use of a semi-structured approach allowed the students to describe their ideas in an open way. The questions were centred on gaining insight into the class climate and interaction patterns. The four open ended direct questions asked were:

1. Tell me how friendly you find the class? Why do you say that?
2. If you could change anything about how people get on, what would that be?
3. What would your idea of the best kind of class be?
4. How does your class measure up to that?

To allow comparison of data, the same set of questions were asked at the conclusion of the program.

Method of Data Collection

a) Teacher Report

Data were collected in the interval prior to the C.P.L. and again at the conclusion of the program. The interviewee was assured of confidentiality prior to commencement of the interview. The interview was audio-taped so as not to slow down the process and the tape transcribed at a later date. In order to obtain comparable data both interviews were conducted in the same manner. The interviews were scheduled at the conclusion of the school day so that time pressure could be discounted.

b) Teacher Interview

The data collection followed the same protocols as in the teacher report.

c) Target Student Interviews

Rapport was established before the interview by discussing topics of interest with the student. The purpose of the interview was outlined and confidentiality assured. During the interview appropriate physical and verbal gestures were used in response to student comment. Where appropriate, clarification of answers was sought. Answers were audio-taped. The tape recorder was placed to one side of the table so as to reduce the inhibiting effect a tape recorder might have on the interviewee's response.

Data Analysis

a) Teacher Report

The interviews were audio-taped and a summary of the key points entered under each question. The summary of key points was shown to the teacher for verification as being an adequate and accurate summary of the ideas (Fossey, Harvey, McDermott, & Davidson, 2002). Pre and post data were then analyzed for changes in response.

b) Teacher Interview

The interviews were audio-taped and a summary of key points entered under each question and then shown to the teacher for confirmation of accuracy. Pre and post data were analyzed for shifts in response.

c) Target Student Interviews

Although the open ended questions were designed to obtain specific information, an inductive approach was taken in the analysis of the target students' answers. The thematic analysis, used a constant comparative method (Lincoln & Guba, 1985) involving a process of classifying, comparing, grouping and refining groupings of ideas from the data to generate themes. The pre and post data were then analyzed for either patterns or distinctions between data.

d) Teacher's Evaluation of Co-operative Learning

Additional information was obtained from this teacher designed questionnaire, given to the whole class at the end of the program. While this was not an intended piece of data, the content was valuable in contributing towards the triangulation of data sources thus permitting 'comparison and convergence of perspectives to identify corroborating and dissenting accounts and so to examine as many aspects of the research issue as possible' (Fossey, Harvey, McDermott, & Davidson, 2002. p.728). The responses to each of the questions were examined for common themes.

CHAPTER FIVE

RESULTS

This chapter begins with a brief account of the difficulties encountered in the implementation of the C.L.P. It is followed by a description of the target students drawn from the following data sources: sociogram, teacher report, classroom observations, teacher interview and playground observations. In the subsequent discussion of the results, reference will be made to these students.

Data were gathered from a wide range of data sources for effective triangulation of the results. The data sources include: questionnaire, sociogram, classroom observations, teacher event record of bullying behaviours, playground observations of target students, teacher report, teacher interview, target student interviews and the teachers evaluation of co-operative learning. Once all these data have been presented the research questions will be addressed.

Implementation of the Program

Although the C.L.P. was designed to be delivered over a period of 10 weeks the delivery time of the program extended to 20 weeks. School timetabling and unforeseen demands on teacher time made the delivery of the program within the specified time too challenging. Although an agreement had been reached with the teacher to practise between the sessions, this did not happen. To develop the level of sophisticated group work within this methodology requires time and practise. Because of this reduced opportunity for practise, the anticipated skill level in the students was not attained, nor was the planned level of co-operative activity in the classroom achieved.

Target Students

Data were taken for all the students in the class, but the target students were selected as a cross section of the class to provide more detailed data, or for what Fossey, Harvey,

McDermott, and Davidson (2002) term 'information richness'. Results from the sociogram were used to identify three categories of social status: isolates, cliques and popular students.

Isolate student: one who chooses but receives few choices.

Clique student: a subgroup of students who only select each other.

Popular student: one who receives many choices but chooses few (Treadwell, Kumar, Stein, & Prosnick, 1998).

Three target students were selected from each of the groups. Over the course of the intervention three students left leaving six students at the end of the program.

Isolate Students

Student A A Year 8 student whom the sociogram data (see Appendix N) showed to be part of a group but without any reciprocal friendships. Playground observations suggested a preference for associations with students from other classrooms. The relationships were peripheral ones with the student playing alongside rather than being an integral part of the group. The choices for working partners in the classroom were few, unless directed by the teacher. The teacher considered this student would be viewed by the other students as a 'loser'. Data from the sociogram, teacher report (see Appendix O), classroom observations and playground observations (see Appendix L) confirmed this category of isolate student.

Student B Data from the sociogram (see Appendix N) showed this Year 7 student nominated as part of a group but with no reciprocity of friendship. No-one in the class indicated a desire for friendship with him. Playground observations indicated the student was usually on the peripheral of already formed groups (see Appendix L). The student also spent periods of time on his own walking and watching. The teacher considered this student also would be viewed by the class as a 'loser'. Data from the sociogram, teacher report, classroom observations and playground observations confirmed this isolation.

Student C A Year 7 student for whom the sociogram data (see Appendix N) indicated as being on the outside of a group. With two reciprocated friendships Student C was not as isolated as Students A and B, however Student C was observed to have problematic behaviour e.g. data from the classroom observations indicated few people would sit by her because of her constant demand on teacher time and data from the teacher event record shows involvement in bullying both reported by other students and suspected by the teacher. These behaviours seemed to contribute to a general class rejection.

Clique Students

Student D Data from the sociogram (see Appendix N) classified this Year 7 student as being both a leader and part of a group. The playground observations (see Appendix L) showed her to be an important part of friendship groupings as she was able to move into and be a contributing part of these groups. The student was often provocative to the teacher by calling across the room, or with 'quiet' oppositional behaviour e.g. subtly refusing to comply with instructions.

Student E A Year 7 student with behaviours the teacher believed the class would view as being 'silly' (see Appendix O). The sociogram results (see Appendix N) showed him nominated as being both part of a group and a leader. This student, as well as having five reciprocal friendships enjoyed being a member in team games (see Appendix L). His quietly provocative behaviour towards a student with Aspergers Syndrome was seen by the teacher to be 'unfortunate'.

The other student identified as part of a 'clique' left the school so is not included in the data analysis.

Popular Student

Student F A year 7 student described by the teacher as having difficulty relating to other students. Playground observations (see Appendix L) confirmed this description. Moving from group to group, walking around on her own and essentially being self sufficient in her own company is consistent with the literature of a popular student: one who receives many choices but chooses few.

Data from the sociogram (see Appendix N) indicated little reciprocity of friendship e.g. nine students wanted to know her, but she chose to reciprocate with only one friendship.

The other two students identified as ‘popular’ left the school so are not included in the data analysis.

Data Sources

1. Questionnaire

The questionnaire was adapted from Sullivan (2001, see Appendix B) and was designed to ascertain student perceptions of actions or events depicting bullying. The questionnaire distinguishes between events that have happened to the student, that the student has ‘done’ to others and that the student has observed happening to others. The students answered each of the 33 items in the questionnaire by responding with a score of 1 (never), 2 (sometimes) and 3 or 4 according to the *intensity* of the response. The numerical rating for each item was then totaled, the average calculated and a comparison made for each item of the questionnaire pre and post program. The results show an increase in the average scores on 24 items, a decrease on 4 items and no change on 5 items (see Table 2). This distinction in interpretation will be discussed later (see p. 80). Although the results show an increase they need to be considered from the perspective of statistical significance. To assess this, the Sign Test has been used, comparing the number of increases (24), against the number of decreases (4). As the number of ‘ties’ is not large, these are ignored in line with recommendations on the use of the Sign Test (Leach, 1979, pp. 120-21). This reduces the total number of items to 28.

Based on a “Table of Critical Values for N+ For the Sign Test” (Leach, 1979, p. 315), the

conclusion is reached that there has in fact been an increase in the reporting of bullying following the intervention. Using a two tailed test, the probabilities associated with the 0.05 and 0.01 significance levels are 20 and 22 respectively. The obtained value (24) exceeds both these figures. As already mentioned, the precise interpretation of this finding will be discussed later.

Table 2

Average scores for questionnaire items pre and post co-operative learning program

	<u>Pre-program</u>	<u>Post-program</u>	<u>Direction of change</u>
<u>Happened to me:</u>	average score for item	average score for item	
hitting	1.3	1.7	+
weapon used on me	1.2	1.1	-
mean teasing	1.5	1.5	0
purposely left out of things	1.3	1.4	+
had my things damaged or stolen	1.4	2.0	+
horribly sworn at	1.4	1.5	+
had offensive suggestions made	1.5	1.3	-
untrue gossip spread about me	1.3	1.7	+
rude gestures or faces made at me	1.4	1.5	+
I was threatened	1.2	1.2	0
nasty things said	1.5	1.2	-
			6 + 3 - Not Significant

	<u>Pre-program</u>	<u>Post-program</u>	<u>Direction of change</u>
<u>I have:</u>	average score for item	average score for item	
hit	1.3	1.5	+
used a weapon on someone	1.2	1.2	0
teased someone	1.3	1.5	+
purposely left someone out	1.3	1.5	+
damaged or stolen possessions	1.2	1.3	+
sworn horribly at someone	1.5	1.8	+
made offensive suggestions	1.2	1.4	+
spread untrue gossip	1.1	1.3	+
made rude gestures or faces	1.5	2.1	+
threatened someone	1.2	1.2	0
said nasty things	1.2	1.3	+
			9 + 0 - Significant

	<u>Pre-program</u>	<u>Post-program</u>	<u>Direction of change</u>
<u>I have seen or heard:</u>	average score for item	average score for item	
hitting	1.9	2.7	+
use of a weapon on someone	1.5	1.8	+
mean teasing	2.1	2.7	+
someone purposely left out	2.0	2.1	+
things damaged or stolen	1.5	2.5	+
someone sworn at	1.7	2.5	+
offensive suggestions made	1.6	2.0	+
untrue gossip spread	1.8	1.9	+
rude gestures or faces made	1.8	2.1	+
someone threatened	1.7	1.7	0
nasty things said about someone	1.8	1.7	-
			9 + 1 - Significant

Given that there is a statistically significant increase overall, it is of interest to determine whether the results for each section are also significant. Again the Sign Test can be used. The results are summarized below:

Table 3
Statistical analysis of students’ perceptions of bullying

<u>Test / Subtest</u>	<u>No. of non-zero differences</u>	<u>No. of increases</u>	<u>Significance</u>
Overall	28	24	p<0.01
Happened to me	9	6	Not significant
I have	9	9	p<0.05
I have seen heard	10	9	p<0.05

As can be seen, the results are significant also for the two sections, “I have” and “I have seen/heard”. The questionnaire analysis provides information that is inconsistent with the other data sources. These data may reflect an increase in the incidents of bullying or alternatively, they might indicate an increase in the awareness of bullying that is taking place. The question of reliability and validity of the questionnaire also needs to be addressed. These distinctions in interpretation will be explored further in the discussion.

2. Sociogram

The data from the sociogram were analyzed for five pieces of information:

- a. reciprocated friendships,
- b. nominated as nor liked,
- c. definitely a leader,
- d. part of a group, and
- e. outside of a group.

The data from the sociogram are presented in Appendix P. The question that asked the students to nominate ‘definitely a leader’, ‘part of a group’ and ‘on the outside of things’

required a response that saw each of the students allocated to one of those three categories. Percentages were calculated to enable comparability of pre and post data.

An analysis of the data (see Table 4) indicates that of all the responses only two show clear cut changes; 'reciprocated friendships' and 'part of a group'. Analysis of the data pertaining to 'definitely a leader' indicates nominations for the girls as staying the same, but fewer nominations for the boys. While the overall score stayed almost the same in the category 'outside of a group' a distinction between the boys and girls was apparent; fewer boys but more girls were nominated as outside of a group. In the 'not liked' category more girls were nominated while the nominations for the boys stayed the same.

Reciprocated Friendships Questions 1 and 2 in the sociogram asked students to name up to five students from their class whom they classified as their best friends. Reciprocated friendships were then calculated by comparing the responses for diads of students who identified each other as friends. As can be seen in Table 4 the number of nominations increased from a pre-program score of 55 to a post-program score of 82. The increase in reciprocated friendship choices occurred for both girls and boys although the increase was greater for girls.

Part of a Group The results show greater inclusion for both boys and girls. For boys, the increased inclusiveness is commensurate with the decreased number of nominations in the category 'outside of a group' and 'definitely a leader'.

Target Students Analysis of the data is inconclusive (see Table 5). Data for the isolate group reveal greater incidence for not being liked, being on the outside of a group, but greater reciprocal friendship. For the cliques, a dichotomy arises with data showing greater frequency for being outside of a group and not liked, yet more reciprocal friendships and being part of a group. The popular group also show a similar trend, with data indicating more reciprocal friendships but conversely, not being liked. The number of target students had reduced to six by the end of the program so the validity of the data is questionable. The issues of validity and reliability of sociograms will be explored in the discussion.

Table 4
Percentage of nominations given in the sociogram for each question pre and post co-operative learning program

DEFINITELY A LEADER

	<u>Pre-program</u>	<u>Post-program</u>
Girls	14.97 %	15.00 %
Boys	18.40 %	13.84 %
% of Total Number of Nominations	33.38 %	28.84 %

PART OF A GROUP

	<u>Pre-program</u>	<u>Post-program</u>
Girls	24.02 %	25.22 %
Boys	22.93 %	27.03 %
% of Total Number of Nominations	46.95 %	52.25 %

OUTSIDE OF A GROUP

	<u>Pre-program</u>	<u>Post-program</u>
Girls	9.98 %	10.86 %
Boys	9.67 %	8.02 %
% of Total Number of Nominations	19.65 %	18.88 %

RECIPROCATED FRIENDSHIPS (Questions 1 & 2)

Average Number of Nominations

	<u>Pre-program</u>	<u>Post-program</u>
Girls Average	2.00	3.07
Boys Average	2.07	3.00

RECIPROCATED FRIENDSHIPS – NUMBER OF NOMINATIONS

	<u>Pre-program</u>	<u>Post-program</u>
Number of Nominations (girls and boys)	55	82

NOMINATED AS NOT LIKED (Questions 3 & 4)

Average Number of Nominations

	<u>Pre-program</u>	<u>Post-program</u>
Girls Average	1.64	2.35
Boys Average	0.92	0.92

Table 5

Sociogram data for target students pre and post co-operative learning program

DEFINITELY A LEADER (%)

	<u>Pre-intervention</u>	<u>Post-intervention</u>
Isolate Average	1.40 %	1.34 %
Clique Average	6.30 %	3.58 %
Popular Average	7.00 %	8.52 %

PART OF A GROUP (%)

	<u>Pre-intervention</u>	<u>Post-intervention</u>
Isolate Average	3.76 %	2.47 %
Clique Average	2.82 %	4.08 %
Popular Average	2.32 %	2.22 %

OUTSIDE OF A GROUP (%)

	<u>Pre-intervention</u>	<u>Post-intervention</u>
Isolate Average	5.29 %	8.21 %
Clique Average	0.79 %	1.36 %
Popular Average	0.00 %	0.00 %

RECIPROCATED FRIENDSHIPS* (Questions 1 & 2)Average Number of Nominations

	<u>Pre-intervention</u>	<u>Post-intervention</u>
Isolate Average	0.66	1.33
Clique Average	4.00	4.50
Popular Average	1.00	3.00

NOMINATED AS NOT LIKED* (Questions 3 & 4)Average Number of Nominations

	<u>Pre-intervention</u>	<u>Post-intervention</u>
Isolate Average	1.33	3.33
Clique Average	1.00	2.50
Popular Average	0.00	2.00

* Same class students pre and post program

3. Observationsa) Classroom Observations

Data were collected to determine the average number of peers each student sat with during free choice 'mat time' in the classroom. As can be seen in Table 6 an increase for both boys and girls is apparent, the greater being for boys.

Table 6
Average number of students sat with pre and post co-operative learning program

	<u>Pre-program</u>	<u>Post-program</u>
Girls Average	1.00	2.07
Boys Average	0.84	2.42

A comparison between the pre and post C.L.P. results for the target students show an overall increase in the number of students sat with (see Table 7). However the individual group breakdown would suggest greater increases for the clique and isolate group and a decrease for the popular group. The issue of validity and reliability arises because of the number of students in the cohort.

Table 7
Average number of students sat with, for target students, pre and post co-operative learning program

	<u>Pre-program</u>	<u>Post-program</u>
Popular Student	2.00	0.50
Clique Student	1.25	3.25
Isolate Student	0.83	2.83
<u>Total</u>	4.08	6.58

b) Teacher Event Record of Bullying Behaviours

The teacher kept an event record of incidents she observed, suspected or were reported in the classroom. ‘Observed’ were incidents personally seen by the teacher, ‘reported’ were student informed incidents and ‘suspected’ were those incidents where subsequent student behaviour indicated that something had occurred but wasn’t personally witnessed

by the teacher. The event record was kept both pre and post the C.L.P. It was intended to record the bullying behaviours under the following headings:

- a) student involvement,
- b) type of observation,
- c) number of bullying incidents, and
- d) time of day, curriculum subject and place of occurrence.

However, the teacher was only able to document the name of the student and the type of observation. Time, place and the number of incidents went unrecorded so the results inform on two aspects only, that is, student name and type of incident. In the week prior to the program there were 22 incidents of bullying behaviour involving 11 students. After the program the number of incidents of bullying behaviour had decreased to five and the number of students decreased to two (see Table 8).

Table 8

Teacher event record of bullying behaviours pre and post co-operative learning program

	Pre – Number of incidents *	Post – Number of Incidents *
Observed	3	2
Reported	10	1
Suspected	9	2
* involving 11 students		* involving 2 students

c) Playground Observations of Target Students

The purpose of the observations was to collect anecdotal data on the target students in free-play settings. Note was taken of the type of interaction the student was involved in e.g. playing with, playing alongside or playing on their own. Two periods of 20 minutes each (morning break and lunchtime) were observed. The total observation time of 40 minutes made taking cognizance of low frequency behaviours and critical events impossible. Critical events are those social challenges that occur relatively infrequently

but tax a student's integrative skills and thus have a significant impact on a student's social effectiveness in a peer group (Bierman & Welsh, 2000).

The observations (see Appendix L) provide an anecdotal record of student interaction e.g. to what extent the students chose to interact with their classmates, how stable the interaction was and the position they held within the group. Pertinent observations have been used to build up the 'thumb nail' sketch of the target students.

Despite the many advantages and empirical base for using naturalistic observations, there are also potential problems (Merrill, 2001). The issue to be addressed here is the number of observations necessary for reliability of data. The situational specificity was addressed by observing at different times, but the length of observation may be problematic when issues such as students standing for long periods of time in 'tuck shop' queues, and thus limited interaction with peers, may pose a question as to the validity of the observation.

While the playground observations contributed valuable data towards compiling a profile of the target students in 'free play' situations, the number of observations taken proved insufficient to draw results from. Although increased interaction was documented too few data were available for this to be conclusive.

4. Interviews

There were two ways qualitative data were collected from the teacher; through the teacher report (see Appendix O) and the teacher interview (see Appendix Q).

a) Teacher Report

1. Relationships observed in the classroom

Prior to the C.L.P. the teacher's description of student relationships ranged from limited interaction to no bonding at all. Prior relationships provided Year 8 girls with a network of friends into which mature Year 7 girls were accepted. This left many students without friends. Overall, relationships formed the previous year provided the social structure for the class. The lack of involvement by students towards bullying; 'they think that if they

are an observer they can't be blamed', prompted the teacher to suggest that a more 'caring' attitude was needed in the classroom.

After the C.L.P. a greater number of interactions were noticed within the class. Year 7 and 8 students were mingling freely together and larger friendship groups had formed. Of note was the teacher comment that, 'they have a more relaxed attitude towards each other' and 'mingling between the sexes is common'.

2. Friendship grouping in the classroom

In the pre-program interview, students were identified according to their lack of social acumen rather than friendship.

Following the C.L.P. identification was on the basis of friendship as a wider variety of groupings had developed and sharing, tolerance and bonding had become evident. 'Children appear more tolerant of those who are perceived to be on the outer', and 'a teacher made comments about how well the class got on with each other', show a measure of cohesiveness had developed between the students.

3. Main groups in the classroom

Prior to the program the few friendship groups that were identified ranged from, 'cool group', and 'goes with what suits at the time', through to, 'sensible and hard working'.

Following the program more groups were recognized and the teacher commented that, 'the boys do not appear to have as much division or clarity between them as the girls do'.

b) Teacher Interview

1. Perception of bullying behaviour in the classroom?

In the pre-program interview the classroom was described as having an 'undercurrent' and being 'secretive' in nature. Bullying was both verbal and emotional with isolated and unpopular students picked on. While this was not obvious to the teacher the students were aware of the incidents.

At the completion of the C.L.P. the classroom dynamics had changed. The teacher observed that, 'the boys appear quite comfortable in each others' company and bullying

is not a common occurrence', and with respect to the girls, 'bullying does not appear to be an issue apart from the odd skirmish'.

2. What is understood by co-operative learning?

~~The teacher's knowledge prior to the program was succinctly described as, 'interacting to~~ get to a common goal'.

As a consequence of the program this knowledge of co-operative learning was broadened to encompass the notion of it being a 'process by which students are enabled to share skills collectively when approaching situations and reaching agreed solutions'.

3. Why use co-operative learning?

'Building caring relationships' was the singularity of understanding held by the teacher at the commencement of the C.L.P.

At the conclusion of the program this idea had expanded to, 'it fosters healthy relationships amongst children throughout the class', 'it encourages active participation by all' and 'it provides a safe environment for exploration'. The teacher acknowledged that, 'the children are able to learn and work alongside those they might not normally choose to in everyday situations'.

4. Teacher expectations of the program?

The teacher expressed a desire for the development of an atmosphere where, 'caring, looking out for each other, building up and acknowledgement' become apparent.

5. The effectiveness of the program?

The program was described as, 'having encouraged the children to take risks getting to know and work with those they might not have, left to their own devices'. The type of learning became, 'more child directed and children were encouraged by their peers'. The result was, 'a more mature outlook and combined, the groups were able to consider a variety of approaches to a particular situation'.

c) Target Student Interviews.

Interviews were conducted with the target students pre and post program (see Appendix R). The thematic analysis of the transcripts focused on developing categories derived inductively from the data. It involved a progressive process of classifying, comparing grouping and refining the groupings of ideas from the data to generate themes. Not all ideas proffered were judged as relevant e.g. the need for comfortable chairs to create a better class. The data analysis resulted in six broad themes emerging:

1. Class climate: friendliness, happiness, kindness.
2. Friendship patterns: working with each other, getting on with other, knowing each other, joking and having fun, being nice to each other, participating together.
3. Inappropriate behaviour: silly behaviour, not paying attention.
4. Bullying: name calling, annoying each other, teasing, pushing, swearing at each other and gangs.
5. Class organization: listening to instructions, teacher attributes and class structure.

Inter-rater Reliability Fifty percent of the comments from each of the four questions were randomly selected. An R.T.L.B. colleague was then asked to categorize the comments according to the preset definitions for each of the categories. The inter-rater reliability was calculated by dividing the total number of agreements by the total number of agreements and disagreements and then multiplying by 100 to yield the percentage of agreement. The inter-rater reliability was calculated at 90%.

Before the C.L.P. commenced all the target students interviewed had conceptualized what an ideal class would be like. An ideal class they believed would be friendly, a place where students were kind to each other and where bullying was non-existent. This they believed would allow for physical and emotional safety and an environment conducive to learning. Within the class organization, having the opportunity to listen to the teacher and follow instructions was seen as central to functioning well as a learner. The ideal postulated prior to the C.L.P. did not change subsequent to it. Those elements fundamental to effective learning were recognized and held within the students' schema throughout the program and provided for them, a basis for comparison.

1. Class Climate

In the pre-program phase, class climate comments ranged on a continuum from 'a long way from the ideal' and 'hardly measures up' to 'quite friendly' and 'all of them kind'. Within this range of assessment, those comments describing the class as affable and favourable belonged to the clique students while the more negative responses came from the isolate students.

At the conclusion of the program the range of comment had narrowed. While some restrained comments (e.g. 'little better than it used to be') still existed, student perception had shifted and more affirmative comments were expressed such as 'almost what you want' and 'more friendly with each other'. Although the students made positive statements about the class climate they did indicate there was still room for improvement.

While there was a divergence in opinion at the beginning of the program from the 'isolate' students; the comments 'a long way from what you want' to 'quite friendly' had narrowed in agreement to 'almost what you want' and 'people get along' by the conclusion of the program. The class appeared to have become a more agreeable place for them.

2. Friendship Patterns

The suggestion that the students in the class didn't know each other satisfactorily was an idea held by the majority of target students at the beginning of the program. 'Most people don't know each other' and 'knowing the people and stuff' through to 'some people work with each other' showed that relationships were only in the emergent stage.

By the end of the program some repositioning had taken place. 'They get along now even if they get on your nerves' and 'even if you don't like each other you get along with them' showed an understanding of 'self change' to enhance relationships. The overall shift in class climate was evidenced by some students suggesting that, 'you know more people', 'lots of people getting along' and 'both boys and girls get on with each other'.

Those students identified as belonging to the 'isolate' group presented a range of opinion that included 'friends in another class' to the observation that 'some people work with each other'. All were in agreement by the end of the program that the class students were more cohesive and willing to work with each other. The student for whom friendship with students in another class was an option, reported that, 'group work helped because you work with people you don't normally work with'.

3. Inappropriate Behaviour

Behaviour inappropriate to learning was identified by the target students prior to the program as 'silly' and 'loopy'. 'They are silly some of the time' and 'they don't pay attention' describes collectively behaviours seen to impede learning. At the conclusion of the program student comment about behaviour included, 'some people have got more sense now' and 'people just get on'. While this does indicate an awareness of what constitutes behaviour appropriate to learning, the comment, 'there is still some silliness', suggests the behaviours still needed refinement.

This was reported similarly by the 'isolate' students. The desire for students to be 'sensible' and 'attentive' was achieved to some extent by the end of the program as these students were in agreement that, while there was 'still some silliness' the students were more willing to 'get on with each other'.

4. Bullying

Within the spectrum of bullying behaviours the verbal, emotional and physical aspects were identified by the students. 'People pick on each other', 'sometimes people get hurt' and 'people get angry because of name calling and swearing' revealed an unsafe tenor in the classroom. 'Both boys and girls are in mixed gangs' and 'only some days there are two gangs', are comments that revealed gang activity as being in existence. When asked to depict a 'best kind of class' the students had a well defined idea of that makeup. It included the descriptors; 'no swearing', 'no stealing out of desks', 'no gangs', 'no pushing' and 'feeling safe'. The above comments made it clear that while the students

knew the behaviours to be attained, this class in the pre program phase, was one where bullying was pervasive.

Subsequent to the program a progression towards emotional and physical safety was observed. 'Not so much fighting because we have worked in groups' through to, 'don't bully each other' and 'call names in a nice way more as a joke now' revealed a security felt in each other and that comments and actions were modified and were not seen as derogatory. 'Not much bullying', however does suggest that while diminished, some bullying still existed.

The progression towards safety was reiterated by the 'isolate' students and in particular one student who had been verbally bullied; 'a boy said I have nits in my hair' and 'everyone bullies me'. By the conclusion of the program that reporting of harassment was replaced with 'changed, no more bullying, shoving and pushing' and 'no teasing'. The classroom environment had become a more secure place for this student.

5. Class Organization

When the students were asked how a 'best' kind of class would be organized, the notion of students 'listening to the teacher', 'work handed in on time' and 'everyone playing together' suggested the class, in this pre program phase, had structural elements still to be implemented.

At the conclusion of the program those ideals were still apparent. The need for 'people to do as they are asked' and, 'a nice teacher that takes you out for games when the whole class has been good' does indicate that there was a limited manifestation of those ideals. For the 'isolate' students, comparable sentiments were held.

d) Teacher's Evaluation of Co-operative Learning

This additional information was obtained by the teacher at the end of the program. While not part of the instrumentation used, it does provide a valuable insight into student opinion of the C.L.P. All the students completed the anonymous evaluation and the

questions were clearly explained so as to ensure understanding. The completed evaluations were then given to the researcher.

The following questions were asked:

1. How did you first feel?
2. Can a group work well together if they don't know each other very well?
3. What are the five most important skills you have learned?
4. Why is it important to be able to work with others?
5. The best part of this was---?
6. Write a list of the people you would like to work with.

Question 1. How did you first feel?

Most of the students took a negative position in response to this question. The majority expressed feelings of shyness, nervousness and a sense of being scared because of the different teaching methodology being used. Although many of the students reported not enjoying their first experience of co-operative learning, some were able to accept that it would help them get to know each other and so believed it was a good idea. 'I felt nervous and scared because I knew it would be different up here', was a commonality of idea for many students.

Question 2. Can a group work well together if they don't know each other very well?

A clear division of opinion was apparent here with approximately half the students replying in the affirmative and half in the negative. Co-operation, leadership and 'bossing people around' were seen as attributes that would facilitate group work. On the contrary embarrassment, shyness and personality differences were seen as having a negative impact on the ability of a group to work together.

Question 3. What are the five most important skills you have learned?

Overall six skills were identified as being important to these students: the ability to lead, the ability to have fun with people not liked, tolerance, respect, the ability to work with others and the ability to co-operate. Weighting was given to being a leader, being tolerant

and being able to work with others. 'I have learned to have fun with people I don't like' and 'I have learned to work together as a group even if I don't like them I still give it my best' are two comments, the ideas of which were reiterated by many of the students.

Question 4. Why is it important to be able to work with others?

Consideration was given to the long term effects of being able to work with other students. The majority of students believed in both the socializing effects of working together and the maximizing effects 'positive interdependence' have on being able to complete tasks. The sequel of being able to work together the students believed, was an enhanced employment outcome. 'Because when you grow up and apply for lots of jobs you need to be able to co-operate with others' and 'because you get to know people quicker and easy and it's a fun way to learn', was the perspective taken by most students.

Question 5. The best part of this was__?

Group activities rather than the identification of skills were the focus of this answer. 'The best part was pioneer day, we learned to work as team to pitch a tent and fetch water', 'it was a way to get along with others as well as work' and 'the best part was making the farms because we all worked together' were comments representative of the majority of students.

Question 6. Write a list of the people you would like to work with.

Several students answered this question by nominating the whole class and most of the students included the names of both boys and girls in their submissions.

Research Questions

Following the above report of the multiple data sources in this study, it is now possible to consider the contributions of these results to answering the research questions. Multiple data sources have been used in this study to gain as inclusive a perspective as possible on the questions being asked.

The data sources used in this study included:

1. Questionnaire. An adaptation of Sullivan (2001) to survey aspects of bullying in the classroom.
2. Sociogram. A survey of social networks and preferred relationships in the classroom.
3. Observations.
 - a) *Classroom Observations*. Preference of seating arrangement during 'free choice' in the classroom.
 - b) *Teacher Event Record of Bullying Behaviours*. Teacher recording of bullying behaviours in the classroom for a one week period.
 - c) *Playground Observations of Target Students*. Recording of the target student's social interaction in the playground.
4. Interviews.
 - a) *Teacher Report*. The teacher's understanding of student relationships and groupings in the classroom
 - b) *Teacher Interview*. The teacher's understanding of bullying in the classroom and knowledge of co-operative learning.
 - c) *Target Student Interviews*. The target students' understanding of class climate and interaction patterns.
 - d) *Teacher's Evaluation of Co-operative Learning*. Information obtained by the teacher at the end of the C.L.P.

The goal of this study was to investigate the use of co-operative learning as a method for reducing bullying. To this end three questions were asked.

Question 1. Does the introduction of a 10 week whole class co-operative learning program in written language and social studies, result in a wider range of peer interactions and relationships, than prior to the program?

To explore this question the following data sources were used: sociogram, classroom and playground observations, teacher report, teacher interview, target student questionnaire and the teacher's evaluation of co-operative learning.

Use of the sociogram provided the quantification of a perspective unavailable through observation or interview. The data from this instrument did however indicate contradictory patterns of behaviour (see Table 4). The greater number of reciprocated friendships recorded and the increased number of students considered as being 'part of a group' indicate an increase in interaction. But running contrary to this, the slight increase in the numbers of students considered as 'not liked' and 'outside of a group' suggest these findings should be viewed with some hesitancy.

Data from the classroom observations provides clearer evidence of a wider range of peer relationships in the classroom with the numbers of students sat with increasing twofold (see Table 6 and Table 7). The playground observations (see Appendix L) support this trend but as was said earlier, too few data make the validity of this observation equivocal.

Contrary to the sociogram findings of increased numbers of students 'outside of a group', the teacher reported that subsequent to the C.L.P., the students were mingling more freely together and that larger friendship groups had formed. This was further supported by the target student's observations of students 'knowing each other better' and 'getting along with each other' (see Appendix R). Consistent with this is comment from the teacher's evaluation of co-operative learning; that of the skills identified as being important, one was the ability of being able to work with others and co-operate (see Appendix Q). While the results from the observations and interviews suggest a wider range of peer interactions and relationships had occurred, the results from the sociogram give rise to ambiguity in the results. This result will developed be in the discussion.

Question 2. What impact does a 10 week co-operative learning program have on student and teacher perceptions and reports, of bullying behaviour in the class?

To respond this question the following data sources were used: questionnaire, teacher event recording, teacher interview and target student interviews.

As in question one, the quantification of perspective is provided through the questionnaire. The results from the questionnaire (see Table 2) indicate a similar pattern to those obtained from the sociogram (see Table 4) that the quantitative data is at variance to the qualitative data. The questionnaire results show an overall increase in reported bullying and more specifically in the categories, 'I have' and 'I have seen/heard'. Notable is the increased student report of bullying within the classroom context. While these results would suggest that the co-operative learning program had minimal impact on bullying behaviour in the classroom, the qualitative results provide a different perspective.

The teacher's record of bullying incidents and students involved in bullying (see Table 8), show a sharp decline in the numbers recorded subsequent to the C.L.P., but unfortunately the data available do not provide a situational perspective and so cannot be attributed to a particular context. This finding of reduced bullying however is consistent with comments from the teacher (see Appendix O) and target students (see Appendix R), who believed that the classroom dynamics had changed and that a reduction in bullying was evident. The teacher believed that bullying within the classroom was 'not a common occurrence' for the boys and 'not an issue apart for the odd skirmish' for the girls. This trend in classroom behaviour is further supported by the target students who saw the change as a progression towards physical and emotional safety. They suggested that if it were seen on a continuum, it would range from 'not much' to 'they don't bully each other'; the change attributed to the increased interaction and thus their capacity to get on with one another. This will be added to further in the discussion.

Question 3. What impact does a 10 week co-operative learning program have, on the perceptions and reports of bullying behaviour in the playground, among students in the target class?

In considering this question the following data sources were used: questionnaire, teacher event recording, playground observations, teacher interview, and target student interviews.

On the basis of the results from the questionnaire (see Table 2), there is evidence that clearly points to an increase in playground bullying by the participant class. However, when these results are considered beside those from the observations and interviews a different pattern emerges. In forming a conclusion the difficulty arises in providing a distinction between the classroom and the playground, both from the point of the data available and from the perspective of the students for whom a single incident can manifest across the context of both classroom and playground. The questionnaire results are specific but the responses generated from the other data sources are more general. Both teacher and target student response is suggestive of diminished behaviour where there is an inequity of power. Their explanations differ from the results of the questionnaire in that they suggest an evolving environment where safety is enjoyed and relationships enhanced. This will be elaborated on in the discussion.

CHAPTER SIX

DISCUSSION

The results of this study provide only tentative support for the effectiveness of co-operative learning as an intervention for bullying behaviour. In this section this will be examined in terms of the limitations of this study and the interpretation of the results.

Limitations

There are a number of factors in the implementation of this program and the collecting of valid and reliable data that highlight the challenges of classroom research.

Fidelity and Integrity of the Program Implementation

In implementing pedagogical change care needs to be taken to ensure as little discrepancy as possible between the program concept and its delivery. In this research study three issues have been identified as having compromised both the fidelity and integrity of this C.L.P.

1. Although the program was designed to be delivered over a period of ten weeks the delivery period extended to 20 weeks. Because of the extended timeframe fidelity was compromised. The question arises therefore as to whether the measure of cohesiveness that was obtained was due entirely to the program or in part to the passing of time.
2. The complexity of this methodology requires significant teacher commitment to teaching and learning, in a new way. The implementation of this program, although structured to have substantial teacher input, relied appreciably on the researcher.
3. The impact of the program was compromised because of the minimal practise afforded between each of the sessions. The skills learned were to be generalized into other parts of the day and as the students became more skilled, into other parts of the curriculum. Because of the limited practise between each of the sessions, the impact of this program was diminished.

Validity and Reliability

Children's perceptions of what constitutes bullying may influence the accuracy of reporting to teachers or to researchers trying to determine the magnitude of the problem (Dake, Price, & Telljohann, 2003). The role of perception or awareness of bullying behaviour may be influenced by the attention paid to it and the resultant reporting of that behaviour may vary over time. In a study reported by Oliver and Hoover (1994) it was found that the teasing of victims was done in 'fun' and that teasing helped people by making them stronger. Perhaps what is considered fun at a particular point in time, could at a subsequent time, be seen as bullying. Also as students become hypersensitive to bullying they may ascribe behaviours to that label, but if there is no power imbalance that label no longer fits. Because the perception or awareness of bullying is predicated on an evolving understanding of that behaviour, a difficulty then arises in being able to measure it accurately.

Questionnaire

Questionnaires are one of the most used forms for collecting information. Well constructed questionnaires permit the collection of reliable and reasonably valid data, however poorly constructed questionnaires often yield unreliable data of limited validity (Anderson, 1997).

1. The Sullivan (2001) questionnaire does not report on any measures to ensure either its reliability or validity so the reliability and validity of the results are questionable.
2. The reliability of the questionnaire could have been influenced by the events occurring for the students, immediately prior to their answering it.
3. Because of a possible heightened awareness to bullying, the questionnaire administered at the conclusion of the program may not have measured the same behaviours as at the beginning of the program. A heightened perception to bullying behaviour would have redefined those behaviours considered to be bullying and so the behaviours reported on would have been dissimilar.

Sociogram

Sociometric techniques have been demonstrated to have high levels of reliability and validity and they may be predictors of future social outcomes. These procedures measure peer acceptance or social reputation but do not measure a student's social skills (Merrill, 2001). The sociogram used in this study (Sullivan, 2001) did not have any reliability or validity measures reported.

1. The reliability and validity of the sociogram could have been influenced by those events immediately preceding the sociogram being completed by the students. Given the capacity of a sociogram to measure peer acceptance and not social skills, those momentary behavioural interactions could have been reflected and not the more stable interactions more truly representative of the dynamics. The difficulty experienced in a naturalistic setting is the ability to obtain a true picture that is accurate at any one point in time.
2. The sociogram used invited either a positive or negative response because of the way the questions were structured. Although the category 'best friends' and 'those you don't get on with' are mutually exclusive, within this categorization it is expected that an increase at one pole necessarily represents a decrease at the other. What was not represented was a point of neutrality where neither was applicable.
3. Requesting that the students place the names of each of the students in the class into one of three categories provided i.e. 'definitely a leader', 'part of a group' or 'on the outside of things', proved to be too difficult a task and not all were completed as requested.

Observational Data

While there is a strong empirical base and many advantages for the use of naturalistic behavioural observations (Merrill, 2001), within this study two limitations have been identified that compromise its reliability and validity.

1. More than two 20 minute playground observations would be required to generate useful and valid data. Observation of a student in one context (e.g. in the tuck shop line) for most of the observational period, can yield data of questionable usefulness. A greater timeframe would need to be allowed for to combat this threat to validity.

2. Subtle interactions between students are difficult to examine or interpret from a distance. Non-verbal interactions may be missed entirely in an observation but they can be critical precursors to subsequent behaviour.

Dual Role of Researcher

Within the dual role undertaken by the researcher two limitations to this study have become apparent.

1. The validity of data is judged by the extent to which it is fairly and accurately representative. As both researcher and data collector, neutrality in the collection of those data could not be assured.
2. As researcher and interviewer of both the teacher and the target students a measure of tacit power in the situation needs to be recognized. The teacher and students may have reported more positively than they may have, had the interviewer been neutral.

Interpretation of the Results

This study investigated the use of co-operative learning as a method for reducing bullying behaviour by restructuring the ecology of the classroom through increased peer interaction. The results of the study are equivocal because while some evidence suggests the bullying behaviours increased, there is also evidence to the contrary. Given the limitations that have been outlined and assuming that the target students' and teacher's perceptions are legitimate and valid, then the C.L.P. did impact on the climate of the class. At the conclusion of the study both the target students and the teacher reported less bullying behaviour and the affect of the students in the class as being happier. Being able to laugh and joke and work in groups was seen as contributing to this demeanour.

Within an ecological perspective to bullying, the individual characteristics of the students are considered to be influenced by their peers, teacher and class organization and the actions of those, are implicated in the development and maintenance of the behaviour (Espelage & Swearer, 2003). The C.L.P. by influencing each student was, as an extension of that, able to influence the peer group and class climate. The program also influenced

the teacher's way of curriculum delivery and thus the class organization and class climate. When asked to describe how the class climate rated against an 'ideal' class, the target students' pre-program rating included the comments of 'hardly measures up' and 'long way from that idea'. At the conclusion of the program the comments of 'almost what you want' and 'the class is pretty friendly now' reflect a more cohesive friendly environment.

The C.L.P. focused beyond a model of punishment and exclusion, to a proactive approach of teaching social and interactive skills as part of the implicit curriculum. Farmer (2000) agrees that interventions are the most effective when there is a coordinated focus on social skills, peer group associations and classroom structures. The teacher noticed a much wider variety of friendship mixes and bigger friendship groupings at the conclusion of the program. Such was the significance of the behaviour change towards that of 'sharing, tolerance and bonding' the behaviour invited comment from another teacher in the school. Elliott and Gresham (1987) agree that by developing a student's repertoire of positive social skills there is a greater chance for rewarding interpersonal opportunities.

Although the students in the class did not report a significant decrease in bullying behaviours, the teacher reported propitiously on that. The number of incidents either observed, reported or suspected, declined significantly as a result of the program, as did the numbers of students involved. The teacher believed the boys were more 'comfortable' in each other's company and that bullying behaviour from the girls was reduced to the 'odd skirmish' only. The target students too reported a greater feeling of safety in the classroom. This is consistent with the claim of Hazler, Hoover, and Oliver (1991), that a critical factor in school safety and climate, is the interpersonal relationship between individuals and groups of students.

This ecobehavioural bullying intervention moved the locus of the problem from residing only within the student to occurring within an environmental context that supports the behaviour. The co-operative learning teaching methodology used, focused on developing

the interpersonal and social skills in the students, to facilitate positive peer interactions and thus a changed classroom context. To this end, the target students and the class teacher reported less bullying behaviour and a greater cohesion amongst the students in the class.

Implications for Practice

Because the results of this study are equivocal its effectiveness can only be discussed in a limited way. The implications for classroom practice and R.T.L.B. practice relate more to the issues that must be addressed to ensure that co-operative learning is implemented effectively, than is able to be discussed in terms of its impact on bullying behaviour. Despite the limitations, the researcher's experience of the program and extensive reading of the literature have not dissuaded her from a commitment to co-operative learning. Observation of the process has helped in the identification of those characteristics helpful for a more effective dissemination of the methodology (see Table 9). These will be discussed under the headings of: teacher characteristics, R.T.L.B. characteristics, student considerations, program implementation and school context.

Teacher Characteristics

The C.L.P. demonstrated that teacher commitment is crucial for fidelity of implementation. The level of complexity in the group work takes time to develop and as Brown and Thomson (2000) counsel; if teachers want their students to be in a safe and co-operative environment, both time and effort need to be allowed for the development of the skills. Even with modeling and coaching it is not always easy for a teacher to recognize immediately what the benefits will be. Additionally, co-operative learning as a teaching methodology can be incongruent with the beliefs a teacher holds (Kohn, 1992), so necessarily there needs to be a 'fit' between the methodology and the teacher's philosophy. Co-operative learning introduces uncertainty and an element of disequilibrium for a teacher when they assume the role of facilitator, instead of their being the sole source of information. The ability to accept uncertainty in the place of predictable outcomes, a willingness to share any concerns with a teacher more experienced in this methodology and the preparedness to allow time for the

Table 9

Indicators for effective co-operative learning implementation

Teacher Characteristics

- Commitment / fidelity to the program
- A 'fit' between the methodology and the teacher's philosophy
- Willingness to share any concerns or difficulties with a more experienced teacher
- Acceptance of disequilibrium—co-operative learning reduces control and predictability

Resource Teacher: Learning and Behaviour Characteristics

- Thorough understanding of the methodology
- Ability to build relationships with teachers
- Because of the complexity of the methodology, a willingness to support over a prolonged period of time
- Ability to judge a teacher's readiness to commit to such a complex methodology

Student Considerations

- Co-operative learning activities related to their interests
- Group contact not dangerous or hierarchical
- Acceptance that for some students there will be resistance to the methodology

Program Implementation

- Move from simple to more complex structures
- Gradually extend applications to new subject matter
- Use a variety of procedures
- Use the methodology consistently, not in a haphazard way
- Frequent practise, especially in the initial stages
- Teach beginning social skills with non-academic activities
- Reflect on procedures to improve functioning
- Ongoing evaluation of progress for both groups and individuals

School Context

- Supportive school climate – policy or goals at an administrative level
 - School wide implementation
 - Co-operative learning considered part of a teacher's repertoire of skills
 - Ongoing professional development
-

implementation of the methodology, are the teacher characteristics predictive of effective outcomes.

Resource Teacher: Learning and Behaviour Characteristics

Co-operative learning correctly understood requires a reconceptualization of how learning occurs and how students relate to each other during that learning. Because of its complexity, complete familiarization with the methodology is needed by the R.T.L.B. to be able to both support the teacher and address any issues that appear during or after its implementation. During the C.L.P. the issues that arose could not be entirely predicted, so the notion of scaffolding a teacher through the learning phase is a valid one. Of importance also is the R.T.L.B.'s ability to build relationships with teachers. To work with a teacher over a sustained period of time requires an understanding of difference and the ability to communicate, so as to relate to them in a way that feels most comfortable. Closely aligned with the understanding of teacher commitment, is the ability of the R.T.L.B. to judge a teacher's 'readiness' for such a complex methodology. Enthusiasm should not be seen as synonymous with readiness.

Student Considerations

Interactions among students are crucial to the success of co-operative learning, as it is these interactions that help facilitate their learning. Analogous with that, is group contact that is neither dangerous nor hierarchical. Co-operation does not imply accord. In effecting the C.L.P. time needed to be taken to address the discord inherent in beginning groups. Gender differences and unfamiliar group members provided the basis for most of the dissension and resistance to the methodology. Care needed to be taken to address the concerns voiced and the discord replaced with a more functional way of working. Co-operative learning activities need to be relevant and closely aligned to student interest to help promote the positive interactions that McWhirter and McWhirter (1994) say enhance social interaction.

Program Implementation

As with any new teaching methodology, care needs to be taken with the implementation of co-operative learning. As Brown and Thomson (2000) take care to point out, 'learning to work in teams is a gradual process that takes practise and patience...teachers should ease in gently...simple activities should be used (p. 108). The students in the C.L.P. found that working together (as a result of random selection) exigent at the commencement of the program, so care needed to taken to start with simple structures (moving through to more complex ones) and to teach the social skills initially, with non-academic structures. Goodwin (1999) also is of a similar opinion, stressing that frequent practise is needed with a gradual application into new subject matter. For the students, the opportunity to reflect on the group's progress, helped to refine procedures and improve functioning. This held true for the teachers also.

School Context

Teachers are not the only ones who need to carefully structure co-operative learning. School management too needs to create a learning community at the school level and provide professional development to increase teachers' instructional expertise and success (Johnson & Johnson, 1999). From the perspective of a single class initiative, difficulty arises when students are unable to practise new skills in a whole school context that is supportive of those skills. Teacher support too, as Johnson and Johnson agree, is necessary for a more effective implementation of the methodology.

The implementation of co-operative learning is predicated on a number of attributes coming together successfully. These attributes have been identified through the researcher's observation and reading of the literature. While co-operative learning can occur without their all being present, the greatest advantage for students occurs when they are. As Kohn (1992) has written, 'Co-operative learning is not simply a set of techniques. It is not simply the status quo except in groups. At its best, it is an entirely different way of approaching the act of learning' (p. 43).

Implications for Future Research

The complexity of co-operative learning makes it a difficult teaching methodology to conduct research around unless integrity and fidelity to the devised program can be assured. Without such an assurance, judgment as to the effectiveness of the methodology could contain an element of conjecture. To ensure as little discrepancy as possible between the program concept and its delivery, research would best be implemented with teachers already skilled in the methodology. That comprehensive skill base would allow for greater assurance of successful program implementation.

To assess students' social skills using naturalistic behavioural observations, the most appropriate settings for that are those where students commonly interact with their peers (Merrill, 2001). The time allowed for direct observation needs to be of sufficient duration, so that the behaviour observed, is indubitably representative of a student's performance and competence in that setting. An appreciation of a student's interaction patterns and social competence can only be developed over time. Logistically this could prove challenging but necessary for the validity of the data. This then, could reduce any reliance on a sociogram or questionnaire.

Conclusion

Although the results of this study allow only tentative support for the effectiveness of co-operative learning as an intervention for bullying, the research has highlighted key points for consideration in its realization. The threats to fidelity and integrity in the program implementation have been identified, as have the issues surrounding the validity and reliability of the instruments used.

The complexity of this methodology makes it desirous to work with teachers who already have a skill base in co-operative learning. The dissemination of the principles into practise over an extended portion of the curriculum could then be accomplished with greater ease. The increased practise would also help in the fluidity of movement from structure to structure for those students involved.

While there is always a degree of discomfort when embracing new ideas there is also an optimal balance between staying with the same and espousing the new. In co-operative learning a 'friendly excursion into disequilibrium' with collegial support offers benefits to both students and teachers. Co-operative learning as part of a repertoire of teaching methodologies offers teacher choice into a creative environment where students decide their own learning goals and where the outcomes include the development of empathy and students more attuned to each other's needs.

Consistent with the ecological paradigm, student change is reliant on inclusive teaching practice that facilitates contextual change and thus student change. The role of the R.T.L.B. is to bring researched theory into classroom practice to effect change. However, this is dependent on ongoing research, to support the pivotal role R.T.L.B have in supporting inclusion.

REFERENCES

- Adair, V. A., Dixon, R. S., Moore, D. W., & Sutherland, C. M. (2000). Ask your mother not to make yummy sandwiches: Bullying in New Zealand secondary schools. *New Zealand Journal of Educational Studies*, 35 (2), 207-221.
- Akos, P. (2002). Student perceptions of the transition from elementary to middle school. *Professional School Counseling*, 5 (5), 339-345.
- Atlas, R. S., & Pepler, D. J. (1998). Observations of bullying in the classroom. *Journal of Educational Research*, 92 (2), 86-99.
- Anderson, G. (1997). *Fundamentals of educational research*. London: The Falmer Press.
- Astor, R. A., Meyer, H. A., & Pitner, R. O. (2001). Elementary and middle school students' perceptions of violence-prone school subcontexts. *Elementary School Journal*, 101 (5), 511-129.
- Barone, F. (1997). Bullying in school. *Phi Delta Kappan*, September, 80-82.
- Baris-Sanders, M. (1998). Co-operative education lessons from Japan. *Education Horizons*, 4 (6), 14-17.
- Batsche, G. M., & Knoff, H. M. (1994). Bullies and their victims: Understanding a pervasive problem in the schools. *School Psychology Review*, 23 (2), 165-174.
- Bell, J. (2001). *Doing your research project*. Buckingham: Open University Press.
- Besag, V. E. (1993). *Bullies and victims in schools*. Buckingham: Open University Press.
- Berndt, T. J., Hawkins, J. A., & Jiao, Z. (1999). Influences of friends and friendships on adjustment to junior high school. *Merrill-Palmer Quarterly*, 45 (1), 13-35.
- Bierman, K. L., & Welsh, J. A. (2000). Assessing social dysfunction: The contributions of laboratory and performance based measures. *Journal of Clinical Child Psychology*, 29 (4), 526-39.
- Bodrova, E., & Leong, D. J. (2003). The importance of being playful. *Educational Leadership*, 60 (7), 50-53.
- Boulton, M. J. (1993). A comparison of adults' and children's abilities to distinguish between aggressive and playful fighting in middle school pupils. *Educational Studies*, 19 (2), 193-204.

- Boulton, M. J., & Underwood, K. (1993). Bully / victim problem among middle school children. *European Education*, 25 (3), 18-38.
- Branwhite, T. (1994). Bullying and student distress: Beneath the tip of the iceberg. *Educational Psychology*, 14 (1), 59-72.
- Brendtro, L. K. (2001). Worse than sticks and stones: Lessons from research on ridicule. *Reclaiming Children and Youth*, 10 (1), 47-49.
- Bronfenbrenner, U. (1979). *The ecology of human development*. Cambridge: Harvard University Press.
- Brown, D., & Thomson, C. (2000). *Cooperative learning in New Zealand schools*. Palmerston North: Dunmore Press Limited.
- Cairns, R. B., Leung, M., Buchanan, L., & Cairns, B. D. (1995). Friendships and social networks in childhood and adolescence: Fluidity, reliability and interrelations. *Child Development*, 66 (5), 1330-1345.
- Casey-Cannon, S., Hayward, C., & Gowen, K. (2001). Middle-school girls' reports of peer victimization: Concerns, consequences, and implications. *Professional School Counseling*, 5 (2), 138-148.
- Chamberlain, S. P. (2003). Susan Limber and Sylvia Cedillo: Responding to bullying. *Intervention in School and Clinic*, 38 (4), 236-243.
- Charach, A., Pepler, D., & Ziegler, S. (1995). Bullying at school. A Canadian perspective. *Education Canada*, Spring, 13-19.
- Cowie, H., Smith, P., Boulton, M., & Laver, R. (1994). *Cooperation in the multi-ethnic classroom*. London: David Fulton.
- Craig, W. M., Pepler, D., & Atlas, R. (2000). Observations of bullying in the playground and in the classroom. *School Psychology International*, 21 (1), 22-36.
- Cram, F., Doherty, L., & Pocock, T. (1995). *Bullying at school: A Manukau North Special Education Service Survey of school students*. Unpublished report for Specialist Education Services, Auckland.
- Creswell, J. W. (1994). *Research design. Qualitative and quantitative approaches*. London: Sage Publications.
- Crick, N., & Grotpeter, J. (1995). Relational aggression, gender and social-psychological adjustment. *Child Development*, 66 (3), 710-722.

- Cross, S. E., & Madson, L. (1997). Models of the self: Self construals and gender. *Psychological Bulletin*, 122 (1), 5-37.
- Cullingford, C., & Morrison, J. (1997). Peer group pressure within and outside the school. *British Educational Research Journal*, 23 (1), 61-80.
- Dake, J. A., Price, J. H., & Telljohann, S. K. (2003). The nature and extent of bullying at school. *Journal of School Health*, 73 (5), 173-180.
- Dake, J. A., Price, J. H., Telljohann, S. K., & Funk, J. B. (2003). Teacher perceptions and practices regarding school bullying prevention. *Journal of School Health*, 73 (9), 347-355.
- Dilley, P. (2004). Review essay. Interviews and the philosophy of qualitative research. *The Journal of Higher Education*, 75 (1), 127-132.
- Dunn, J., Cutting, A. L., & Fisher, N. (2002). Old friends, new friends: Predictors of children's perspective on their friends at school. *Child Development*, 73 (2), 621-635.
- Eccles, J. S. (1999). The development of children ages 6 to 14. *The Future of Children*, 9 (2), 30- 42.
- Elliott, S. N., & Gresham, F. M. (1987). Children's social skills: Assessment and classification practices. *Journal of Counseling and Development*, 66 (2), 96-99.
- Espelage, D. L., Bosworth, K., & Simon, T. R. (2000). Examining the social context of bullying behaviours in early adolescence. *Journal of Counseling and Development*, 78 (3), 326-334.
- Espelage, D. L., & Swearer, S. M. (2003). Research on school bullying and victimization: What have we learned and where do we go from here? *School Psychology Review*, 32 (3), 365-384.
- Farmer, T. W. (2000). The social dynamics of aggressive and disruptive behaviour at school: Implications for behaviour consultation. *Journal of Educational and Psychological Consultation*, 11 (3/4), 299-322.
- Farmer, T. W., & Cadwallader, T. W. (2000). Social interactions and peer support for problem behaviour. *Preventing School Failure*, 44 (3), 105-109.
- Fossey, E., Harvey, C., McDermott, F., & Davidson, L. (2002). Understanding and evaluating qualitative research. *Australian and New Zealand Journal of Psychiatry*, 36. 717-732.

- Froschl, M., & Gropper, N. (1999). Fostering friendships, curbing bullying. *Educational Leadership*, 56 (8), 72-76.
- Gay, L. R. (1987). *Education research. Competencies for analysis and application*. Columbus: Merrill Publishing Company.
- Gillies, R. M. (2002). The residual effects of cooperative-learning experiences: A two year follow up. *Journal of Educational Research*, 96 (1), 15-20.
- Goodwin, M. W. (1999). Cooperative learning and social skills: What to teach and how to teach them. *Intervention in School and Clinic*, 35 (1), 29-33.
- Hartup, W. W. (1992). Having friends, making friends, and keeping friends: Relationships as educational contexts. In *ERIC Clearinghouse on Elementary and Early Childhood Education Urbana IL*.
<<http://www.ericfacility.net/ericdigests/ed345854.html>
- Hartup, W. W. (1996). The company they keep: Friendships and their developmental significance. *Child Development*, 67 (1), 1-13.
- Hartup, W. W., & van Lieshout, C. F. M. (1995). Personality development in social context. *Annual Review of Psychology*, 46. 655-688.
- Hazler, R. J. (2000). When victims turn aggressors: Factors in the development of deadly school violence. *Professional School Counseling*, 4 (2), 105-112.
- Hazler, R. J., Hoover, J. H., & Oliver, R. (1991). Student perceptions of victimization by bullies in school. *Journal of Humanistic Education and Development*, 29. 143-150.
- Hazler, R. J., Hoover, J. H., & Oliver, R. (1992). What kids say about bullying. *The Executive Educator*, 14 (11), 20-22.
- Heinrichs, R. R. (2003). A whole school approach to bullying: Special considerations for children with exceptionalities. *Intervention in School and Clinic*, 38 (4), 195-205.
- Hoover, J. H., & Juul, K. (1993). Bullying in Europe and the United States. *Journal of Emotional and Behavioural Problems*, 2 (1), 25-29.
- Holtappels, H. G., & Meier, U. (2000). Violence in schools. *European Education*, 32 (1), 66-79.
- Johnson, J., & Ironsmith, M. (1994). Assessing children's sociometric status: Issues and the application of social network analysis. *Journal of Group Psychotherapy, Psychodrama and Sociometry*, 47 (1), 36-49.

- Johnson, D. W., & Johnson, R. T. (1999). Making co-operative learning work. *Theory Into Practice*, 38 (2), 67-73.
- Johnson, D., Johnson, R., & Holubec, E. (2002). The new circles of learning: Cooperation in the classroom. *Association for Supervision and Curriculum Development*. <http://www.ascd.org/readingroom/books/johnson94book.html>
- Johnson, D., Johnson, R., & Stanne, M. (2000). Cooperative learning methods: A meta-analysis. *Running Head: Cooperative Learning Methods*. <http://www.co-operation.org/pages/cl-methods.html>
- Johnson, D., & Lewis, G. (1999). Do you like what you see? Self-perceptions of adolescent bullies. *British Educational Research Journal*, 25 (5), 665-678.
- Jordan, D. W., & Le Metais, J. (1997). Social skilling through co-operative learning. *Educational Research*, 39 (1), 3-21.
- Kagan, S. (1994). *Cooperative learning*. San Clemente: Resources for Teachers, Inc.
- Kagan, S. (2001). Teaching for character and community. *Educational Leadership*, 59 (2), 50-55.
- Kohn, A. (1992). Resistance to cooperative learning: Making sense of its deletion and dilution. *Journal of Education*, 174 (2), 38-56.
- Leach, C. (1979). *Introduction to statistics*. New York: John Wiley & Sons.
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. California: Sage Publications.
- Lindsey, E. W. (2002). Preschool children's friendships and peer acceptance links to social competence. *Child Study Journal*, 32 (3), 145-157.
- Mc Evoy, A., & Welker, R. (2000). Aintisocial behaviour, academic failure, and school climate: A critical review. *Journal of Emotional and Behavioural Disorders*, 8 (3), 130-140.
- Mc Whirter, J., & Mc Whirter, B. (1994). High and low risk characteristics of youth: The five C's of competency. *Elementary School Guidance and Counseling*, 28 (3), 188-196.
- Mac Aulay, D. J. (1990). Classroom environment: A literature review. *Educational Psychology*, 10 (3), 239-253.
- Maines, B., & Robinson, G. (1998). *All for Alex. A circle of friends*. Bristol: Lucky Duck Publishing.

- Marr, M. B. (1997). Cooperative learning: A brief review. *Reading and Writing Quarterly, 13* (1), 7-20.
- Maxwell, G. M., & Carroll-Lind, J. (1997). Impact of bullying on children. Wellington: Office of the Commissioner for Children. Occasional Paper No. 6.
- Merrill, K. W. (2001). Assessment of children's social skills: Recent developments, best practices and new directions. *Exceptionality, 9* (1/2), 3-15.
- Ministry of Education. (1993). *The New Zealand Curriculum Framework*. Wellington: Learning Media.
- Ministry of Education. (1997). *Social studies in the New Zealand Curriculum*. Wellington: Learning Media.
- Ministry of Education. (1999). *Health and physical education in the New Zealand Curriculum*. Wellington: Learning Media.
- Ministry of Education. (2000). *National Administration Guidelines*. Wellington: Learning Media.
- Ministry of Education. (2001). *Resource Teacher Learning and Behaviour (RTL) Clusters. Effective governance, management and practice*. Wellington: The Ministry of Education Special Education Unit.
- New Zealand Police Youth Education Services. (1999). *Kia Kaha. A resource kit about bullying for students, teachers and parents*. Wellington: New Zealand Police.
- O'Connell, P., Pepler, D., & Craig, W. (1999). Peer involvement in bullying: Insights and challenges for intervention. *Journal of Adolescence, 22* (4), 437-453.
- Oliver, R., & Hoover, J. H. (1994). The perceived roles of bullying in small-town Midwestern schools. *Journal of Counseling and Development, 72* (4), 416-420.
- Olweus, D. (1993). *Bullying at school: What we know and what we can do*. Oxford: Blackwell Publishers.
- Pellegrini, A. D. (2002). Bullying, victimization, and sexual harassment during the transition to middle school. *Educational Psychologist, 37* (3), 151-163.
- Peterson, R., & Skiba, R. (2001). Creating school climates that prevent school violence. *Social Studies, 92* (2), 167-175.
- Phillipsen, L. G., Deptula, D. P., & Cohen, R. (1999). Relating characteristics of children and their friends to relational and overt aggression. *Child Study Journal, 29* (4), 269-290.

- Porter, L. (2000). *Student behaviour. Theory and practice for teachers*. St Leonards: Allen & Unwin.
- Quest International. (1999). *Skills for adolescents*. Australia: McPhersons Printing Group.
- Quinn, M. M., & Jannasch-Pennell, A. (1995). Using peers as social skills training agents for students with antisocial behaviour. *Preventing School Failure*, 39 (4), 26-31.
- Rigby, K. (1996). *Bullying in schools*. Melbourne: The Australian Council for Educational Research Ltd.
- Rigby, K., & Slee, P. T. (1991). Bullying among Australian school children: Reported behaviour and attitudes towards victims. *Journal of Social Psychology*, 131 (5), 615-628.
- Roberts, Jr., & Walter, B. (2000). The bully as victim. *Professional School Counseling*, 4 (2), 148-152.
- Roberts, Jr., Walter, B., & Coursol, D. H. (1996). Strategies for intervention with childhood and adolescent victims of bullying, teasing and intimidation in school settings. *Elementary School Guidance and Counseling*, 30 (3), 204-212.
- Rodkin, P. C., & Hodges, E. V. (2003). Bullies and victims in the peer ecology: Four questions for psychologists and school professionals. *School Psychology Review*, 32 (3), 384-400.
- Roland, E., & Galloway, D. (2002). Classroom influences on bullying. *Educational Research*, 44 (3), 299-312.
- Rutherford, R. B., Mathur, S. R., & Quinn, M. M. (1998). Promoting social communication skills through co-operative learning and direct instruction. *Education and Treatment of Children*, 21 (3), 354-369.
- Sage, N. A., & Kindermann, T. A. (1999). Peer networks, behaviour contingencies and children's engagement in the classroom. *Merrill-Palmer Quarterly*, 45 (1), 143-158.
- Salend, S. J. (2000). Strategies and resources to evaluate the impact of inclusion programs on students. *Intervention in School and Clinic*, 35 (2), 264-271.
- Salmivalli, C. (1999). Participant role approach to school bullying: Implications for interventions. *Journal of Adolescence*, 22 (4), 453-460.

- Sapon-Shevin, M., Ayres, B. J., & Duncan, J. (1994). Cooperative learning and inclusion. In J. Thousand, R. Villa & A. Nevin (Eds). *Creativity and collaborative learning. A practical guide to empowering students and teachers.* (pp 45-58). Baltimore: Paul H. Brookes Publishing Co.
- Schafer, M., & Smith, P. K. (1996). Teachers' perceptions of play fighting and real fighting in primary school. *Educational Research*, 38 (2), 173-182.
- Shakeshaft, C., & Barber, E. (1995). Peer harassment in schools. *Journal For a Just and Caring Education*, 1 (1), 30-44.
- Siann, G., & Callaghan, M. (1993). Bullying: Teachers' views and school effects. *Educational Studies*, 19 (4), 307-322.
- Slavin, R. (1980). Co-operative learning in teams: State of the art. *Educational Psychologist*, 15 (2), 93-111.
- Slavin, R. E. (1991). Synthesis of research on cooperative learning. *Educational Leadership*, 48 (5), 71-81.
- Slavin, R. E. (1996). Cooperative learning in middle and secondary schools. *Clearing House*, 69 (4), 200-204.
- Smith, A. B. (1998). *Understanding children's development*. Wellington: Bridget Williams Books Ltd.
- Smith, P. K., Ananiadou, K., & Cowie, H. (2003). Interventions to reduce school bullying. *Canadian Journal of Psychiatry*, 48 (9), 591-599.
- Smith, S. W., & Giles, D. L. (2003). Using key instructional elements to systematically promote social skill generalization for students with challenging behaviour. *Intervention in School and Clinic*, 39 (1), 30-37.
- Smith, P. K., & Madsen, K. C. (1999). What causes the age decline in reports of being bullied at school? *Educational Research*, 41 (3), 267-286.
- Specialist Education Services. (1992). *Eliminating violence-managing anger*. Auckland: Specialist Education Services.
- Stainback, S., & Stainback, W. (1990). Inclusive schooling. In W. Stainback, & S. Stainback, (Eds). *Support networks for inclusive schooling*. Baltimore: Paul Brookes.
- Sullivan, K. (2000). Bullying in schools. Issues for New Zealand teachers. *Set*, (2), 39-43.
- Sullivan, K. (2001). *The anti-bullying handbook*. Auckland: Oxford University Press.

- Tate, T. F. (2001). Peer influences and positive restructuring. *Reclaiming Children and Youth*, 9 (4), 215-220.
- The Peace Foundation. (1994). *Cool schools peer mediation programme. Training manual*. Auckland: Foundation for Peace Studies Aotearoa / New Zealand (Inc).
- Thomson, C., Brown, D., Jones, E., & Manins, E. (1999). The development of Resource Teachers in New Zealand: A quarter century of paradigm change. In I Livingstone (Ed). *New Zealand annual review of education*. (p. 23-42).
- Treadwell, T. W., Kumar, V. K., Stein, S. A., & Prosnick, K. (1998). Sociometry: Tools for research and practice. *International Journal of Action Methods*, 51 (1), 23-41.
- Twemlow, S. W., & Sacco, F. C. (1996). A clinical and interactionist perspective on the bully-victim-bystander relationship. *Bulletin of the Menninger Clinic*, 60 (3), 296-314.
- Varnham, S. (1999). Safe or sorry? Rights, responsibilities and retribution - the new three R's of education in New Zealand? *Education and the Law*, 11 (4), 267-285.
- Vessey, J. A., Duffy, M., O'Sullivan, M., & Swanson, M. (2003). Assessing teasing in school-age youth. *Issues in Comprehensive Pediatric Nursing*, 26 (1), 1-11.
- Vygotsky, L. S. (1978). *Mind in society: The development of higher mental processes*. Cambridge: Harvard University Press.
- Wentzel, K. R. (2003). Motivating students to behave in socially competent ways. *Theory Into Practice*, 42 (4), 319-32.
- Wentzel, K. R., & Watkins, D. E. (2002). Peer relationships and collaborative learning as contexts for academic enablers. *School Psychology Review*, 31 (3), 366-377.
- Wolke, D., Woods, S., Stanford, K., & Schulz, H. (2001). Bullying and victimization of primary school children in England and Germany: Prevalence and school factors. *British Journal of Psychology*, 92 (4), 673-697.

APPENDIX A

CO-OPERATIVE LEARNING STRUCTURES

THINK PAIR SHARE

Week: 1

Group size: 2 students	<u>Small group skill:</u> Move without noise.
Method: Pair up and discuss topic	Use quiet voices.
1 reports back to class – teacher decides	Asking questions.
	<u>Social skill:</u> 'T' chart. Acknowledging contributions

THREE STEP INTERVIEW

Week: 2-3

Group size: 4 students	<u>Small group skill:</u> Stay with the group
Method: In pairs interview each other	Use names
Reverse roles	<u>Social skill:</u> 'T' chart. Encouraging participation
Each share in turn with the group their partner's information	

RALLY TABLE

Week: 3-4

Group size: 4 students	<u>Small group skill:</u> Direct group's work
Method: In pairs pass paper back and forth and write down ideas	Check for understanding
One member of each pair read the list out loud while other pair add to their list	<u>Social skill:</u> 'T' chart. Turn taking
Reverse so all have everything	

ROUNDTABLE

Week: 4-5

Group size: 4 students	<u>Small group skill:</u> Keeping track of time
Method: Pass paper around the group with each member adding to it	<u>Social skill:</u> 'T' chart. Inviting others to contribute
A member can skip a turn	

NUMBERED HEADS TOGETHER

Week: 5-6

Group size: 4 students	<u>Small group skill:</u> Sharing information and ideas
Method: Each student in group given a number	<u>Social skill:</u> 'T' chart. Responding to ideas
Put heads together to answer the question	
Teacher chooses which 'number' to answer	

EXPERT JIG-SAW

Week: 7-8

Group size: 4 students	<u>Small group skills:</u> Summarizing for understanding and paraphrasing
Method: Each student in the group becomes an expert on the topic	<u>Social skills:</u> 'T' chart. Inviting others to talk
Returns to team to teach the whole team that piece of information	

CHECK AND COACH

Week: 9-10

Group size: 4 students	<u>Small group skills:</u> Integrate ideas into a single position
Method: Work as a whole group to discuss new or revised material	<u>Social skills:</u> 'T' chart. Keeping things calm / reducing tension
At appointed time transform information into new format	
Check everyone can answer questions about it	

APPENDIX B

How We Feel In Our Class

1. Are you a boy or a girl? (circle one) boy girl
2. How old are you? _____
3. What year level are you in? _____

Using the categories 1 never
 2 once in a while
 3 about once a week
 4 more than once a week

write the number that best describes each of these:

4. Since being in this class this has happened to me
____ hitting (punching, kicking, shoving)
____ a weapon used on me
____ mean teasing
____ purposely left out of things
____ had my things damaged or stolen
____ horribly sworn at
____ had offensive suggestions made at me
____ had untrue and mean gossip spread about me
____ had rude gestures or mean faces made at me
____ I was threatened
____ someone said nasty things to make others dislike me

5. Since being in this classroom I have:

- ☐ hit (punched, kicked, shoved)
- ☐ used a weapon
- ☐ teased (mean)
- ☐ purposely left someone out of things
- ☐ damaged or stolen someone's possessions
- ☐ sworn at someone
- ☐ made offensive suggestions to someone
- ☐ made up and spread untrue and mean gossip about someone
- ☐ made rude gestures or mean faces at someone
- ☐ threatened someone
- ☐ said nasty things to make others dislike a person

6. Since being in this class I have seen or heard the following:

- ☐ hitting (punching, kicking, shoving)
- ☐ use of a weapon on someone
- ☐ mean teasing
- ☐ someone purposely left out of things
- ☐ someone having their things damaged or stolen
- ☐ someone being horribly sworn at
- ☐ someone having offensive suggestions made at them
- ☐ someone having nasty things said to make others dislike them
- ☐ someone having untrue and mean gossip spread about them
- ☐ someone being threatened
- ☐ someone having rude gestures or mean faces made at them

7. Where has most of this taken place? Please list these:

8. Do you think the amount of bullying has changed in the class:

Yes / No

9. If “yes” then why do you think this has happened? _____

APPENDIX C

CONFIDENTIAL

Your Name: _____

1. Which students in the class are your best friends?

(name up to 5 friends)

*

*

*

*

*

2. Who is your best friend?

*

3. Name up to 2 people you don't get on with?

(or leave blank)

*

*

4. Who is the person you don't get on with most of all?

(or leave blank)

*

Place each student in the class in one of the three boxes below.

Definitely a leader

Part of a group

On the outside of things

APPENDIX D

VICTORIA UNIVERSITY OF WELLINGTON

te Wnāte wa'hanga o te Upoko b te ika'h māui

PARENT INFORMATION SHEET

Researcher: Robyn Baker: Department of Education, Victoria University of Wellington.

I am a Masters student in Education at Victoria University of Wellington. As part of this degree I am undertaking a research project leading to a thesis. The project I am undertaking is examining co-operative learning as a teaching methodology for enhancing peer interactions and relationships in the classroom.

I will be working in your child's classroom and with the class teacher for the next 10 weeks. The students will be given a questionnaire and other classroom activities which are commonly used in schools to assess class climate. I will be collecting this material for my research.

This research is strictly confidential and all data will be kept in a locked cabinet. At the end of one year, after the completion of the research, all the data will be destroyed. The thesis will be submitted for marking to the School of Education and deposited in the University Library. Aspects of the research may be reported for an article in an academic journal or conference paper.

If you have any questions, or would like further information about the project, please contact the class teacher, or me on phone 577-2430. Thank-you for helping me with my research.

Robyn Baker

APPENDIX E

VICTORIA UNIVERSITY OF WELLINGTON
Te Whare Wananga o te Upoko o te Ika a Maui

CLASS INFORMATION SHEET AND QUESTIONNAIRE

Researcher: Robyn Baker: Department of Education, Victoria University of Wellington.

I am a Masters student in Education at Victoria University of Wellington. As part of this degree I am undertaking a research project leading to a thesis. I am trying to find out how people in your class get on together and how we can improve relationships.

I would like you to complete a questionnaire at the beginning of the program and then again at the end. The questionnaire is anonymous and I will not be showing the completed questionnaires to anyone else. Do not put your name on the form.

At the end of the research I will come and talk to your class about what I found out.

Thank you for helping me with my research.

Robyn Baker

APPENDIX F

VICTORIA UNIVERSITY OF WELLINGTON

Te Whare Wananga o te Upoko o te Ika a Maui **PARENT INFORMATION SHEET**

Researcher: Robyn Baker: Department of Education, Victoria University of Wellington.

I am a Masters student in Education at Victoria University of Wellington. As part of this degree I am undertaking a research project leading to a thesis. The project I am undertaking is examining co-operative learning as a teaching methodology for enhancing peer interactions and relationships in the classroom.

I would like to interview your child before and after the programme as their views will help evaluate the program's effectiveness. On completion, the finished thesis will be submitted for marking to the School of Education and deposited in the University Library. Aspects of the research may be reported for an article in an academic journal or conference paper.

This research is strictly confidential and your child will not be named or identified in any way in any report of the research. All data will be kept in a locked cabinet. At the end of one year, after the completion of the research, all the data will be destroyed.

If you agree, then I will ask your child for their permission also. I have attached a copy of the information sheet and consent form I will use.

If you have any questions or would like further information about the project, please contact me on phone 577 – 2430.

Robyn Baker

APPENDIX G

VICTORIA UNIVERSITY OF WELLINGTON
Te Whare Wananga o te Upoko o te Ika a Maui

STUDENT INFORMATION SHEET

Researcher: Robyn Baker: Department of Education, Victoria University of Wellington.

I am a Masters student in Education at Victoria University of Wellington. As part of this degree I am undertaking a research project leading to a thesis. I am investigating how people in your class get on together and how we can improve relationships.

I would like to talk to you at the beginning of the research program and then again at the end to find out about your experiences. Anything you tell me will stay between us and when I write the report you will not be named or identified in any way, so no-one will know who you are. Everything you tell me will remain confidential unless I have a concern for your safety and if that happens I will talk to you first and then I will talk to your parents and teacher. You may withdraw from this project (before data collection and analysis is complete) without having to give reasons and there will be no penalty.

I will come and talk to the class at the end of my research about what I have found out.

If you have any questions or would like further information, please contact me on phone 577- 2430 or email robynjbaker@hotmail.com and I will talk to you about this project, or otherwise your teacher and I will contact you.

Robyn Baker

APPENDIX H

VICTORIA UNIVERSITY OF WELLINGTON

Te Whare Wananga o te Upoko o te Ika a Maui

TEACHER INFORMATION SHEET

Researcher: Robyn Baker: Department of Education, Victoria University of Wellington.

I am a Masters student in Education at Victoria University of Wellington. As part of this degree I am undertaking a research project leading to a thesis. The project I am undertaking is examining co-operative learning as a teaching methodology for enhancing peer interactions and relationships in the classroom.

The intervention will run for 10 weeks, 3 half days per week in your classroom. Initially my role will be to model the use of co-operative learning and then to coach you. Throughout the intervention we will be jointly planning and I will come to every lesson of the intervention.

The data to be collected will include:

Teacher

1. Teacher Report of interaction patterns in the classroom at the beginning and end of the intervention.
2. Event Record of bullying observed, reported or suspected. This will be one week prior to and one week after the intervention.

Jointly

1. Sociogram completed by the students at the beginning and end of the intervention.
2. Questionnaire completed by the students at baseline and again at the end of the intervention.

3. Teacher Interview I would like to tape record an interview on how you perceive bullying any behaviour in your classroom, both at the beginning and end of the intervention.

I would also like to gain an understanding of the effectiveness of the co-operative learning programme:

- a) prior to the intervention to understand your expectations.
- b) at the conclusion of the programme to see if the expectations are met.

Researcher

1. Classroom Observations by me for one week at baseline and one week at the end of the intervention.
2. Playground Observations by me for one week at baseline and one week at the end of the intervention.
3. Interviews with target students at baseline and again at the end of the intervention.

The data collected will form the basis of my research project and will be put into a written report on an anonymous basis. You, your students and the school will not be identified in any report of the research. All data will be kept secure and that data will be destroyed at the end of one year.

The thesis will be submitted for marking to the School of Education and deposited in the University Library. Aspects of the research may also be reported for an article in an academic journal or conference paper.

If you have any questions or would like to receive further information about the project, please contact me on phone (03) 577-2430 or my supervisor, Elizabeth Jones at the School of Education, Victoria University, P.O. Box 600, Wellington or telephone (04) 463-5939.

Robyn Baker

APPENDIX I

VICTORIA UNIVERSITY OF WELLINGTON
Te Whare Wananga o te Upoko o te Ika a Maui

CONSENT TO PARTICIPATE IN RESEARCH

Parent Name: _____

I give my permission for Robyn Baker to collect data from two interviews with my child for research purposes. I understand that the information from the interviews will be included in a thesis for submission to Victoria University of Wellington.

I understand that the interviews will be confidential and that no information will be shared unless in the course of the interviews my child provides information that raises concern about their safety at school. The information will then be discussed first with my child and then with the teacher.

I understand that my name, my child's name or any other identifiable characteristics will not be included in any report, that all data will be kept secure and that the data will be destroyed at the end of one year after completion of the research.

I understand that my child may withdraw from this project, or I may withdraw permission for my child to take part in this project, (before data collection and analysis is complete) without having to give reasons or without penalty of any sort.

I agree for my child to take part in this research.

Signed _____ Date _____

APPENDIX J

VICTORIA UNIVERSITY OF WELLINGTON

Te Whare Wananga o te Upoko o te Ika a Maui **CONSENT TO PARTICIPATE IN RESEARCH*****Student Name:*** _____

I give my permission for Robyn Baker to talk to me at the beginning of her research and then again at the end. I understand that the information from the interviews will be included in a report and sent to the University in Wellington.

I also understand that anything I say will be kept confidential and that no information will be shared unless it is thought that I am in an unsafe position at school. If this is the case, I will be talked to first and then my parents and the teacher will be told.

I understand that I will not be named in any report of the research.

I understand that I may withdraw from this project (before data collection and analysis is complete) without having to give reasons and there will be no penalty.

I agree to take part in this research.

Signed _____ Date _____

APPENDIX K

VICTORIA UNIVERSITY OF WELLINGTON

Te Whare Wananga o te Upoko o te Ika a Maui

CONSENT TO PARTICIPATE IN RESEARCH

Class Teacher

I have been given and have understood an explanation of this research project. I have had an opportunity to ask questions and have them answered. I understand that I may withdraw myself (or any information I have provided) from this project (before data collection and analysis is complete) without having to give reasons or without penalty of any sort.

I am willing to work with you for 10 weeks, 3 half days a week on a jointly planned and delivered cooperative learning programme.

I am willing to provide data at the beginning and end of the programme through:

1. Report of interaction patterns in the classroom.
2. Interview - of bullying behaviour in the classroom.
- effectiveness of the co-operative learning program.
3. Event record of bullying observed, reported or suspected.

I am willing to administer to the class (with you) a sociogram and questionnaire at the beginning and end of the programme.

I agree to your making classroom and playground observations of student interactions during the week before and the week at the end of the programme. I also agree to your interviewing the target students before and after the programme.

I understand that any information I provide will be kept confidential to the researcher, the published results will not use my name and that no opinions will be attributed to me in any way that will identify me. I understand that the tape recording of interviews will be electronically wiped one year after the end of the project unless I indicate that I would like them returned to me.

I understand that the data I provide will not be used for any other purpose or released to others without my written consent.

I agree to take part in this research.

Signed _____

Date _____

APPENDIX L

Playground observations of target students.

Pre-intervention (March 2003)		Post-intervention (September 2003)
Student A am	Ate in classroom with rest of class. Joined 7 others from other classrooms playing with 'toys'. Joined larger group of 15 – on outside Joined group of 22 playing with 'toys'. (groups fluid) – on outside	<i>In classroom eating with S I and S J. Joined in classroom by S N, S G and one other. S A, S G and 2 others from another classroom talking.</i>
pm	Sat with 3 others from class. Walked to court and joined 8 others from class- fluid groupings as above- on outside Within group playing by himself	<i>With S G, S N, S J, S J and one other eating in classroom. With S G and 8 others in adventure playground With larger group-turn taking on tyre swing.</i>
Student B am	Went outside classroom with group of 8 Stood on outside of another group watching model cars. Walked away on own. Stood watching on outside of group of 6.	<i>In class eating and walking around. Walked outside and joined 1 boy from another class. Went to adventure playground with same boy and joined 2 others from another room.</i>
pm	Ate lunch with 4 others from class. Walked around on own –watched group with 'tops'. Joined group 15 watching 'model cars'.	<i>Part of large group in classroom eating lunch. Went to adventure playground and joined group of 4 on the swings.</i>
Student C am	Walked around with S Z. Joined group of 4 boys-left. Walked around with S Z. Joined 2 boys playing-left. Walked around with S Z	<i>Spent all interval with 4 others from the 'whanau' class inside and outside the classroom.</i>
pm	Ate lunch in classroom completing work. Stood by classroom talking to S Z. Sat on bank with S Z watching netball.	<i>Ate lunch in classroom – then joined the girls in the 'whanau' class.</i>
Student D am	In cloakroom talking to 4 others. Walked outside to court with the 4 others. Walked off and joined another group of 3 girls.	<i>With S X, S T and S M in cloakroom. With S X watching game on court. With S X joined 4 others. Walking around with S X.</i>
pm	Ate lunch with group of 5 girls from another room. Walked around with same girls. Joined on periphery of group of boys fighting.	<i>With S U, S T and S X eating lunch. With S T and S U walking and talking. S D walking around by herself.</i>
Student E am	Time in cloakroom and classroom with 4 others. With S H, S O, S N, S L and 2 others to the field. Playing with ball with above group.	<i>With S J and S H eating in cloakroom. Joined 3 from another class to play 'cards' outside.</i>
pm	Sat with rest of class for lunch. Part of '3 pitch' team game.	<i>With S H and S J eating lunch in classroom. Joined 14 others to play 'bar-the-door' – having to throw each other around but no fighting.</i>
Student F am	In cloakroom talking to 4 others. Walked to canteen on own – talked to others in line. Walked across pl/gd by herself. Joined 2 girls from another classroom.	<i>Walked outside and joined 7 others from another classroom. Joined S T and S U – walked around watching activity on court.</i>
pm	Ate lunch outside with S Y and S Q. Walked across school grounds by herself. Sat talking to 4 girls from another room. Moved off and joined 2 others.	<i>Sat with S T, S X and S W eating lunch. The group joined 1 other from another class. Group walked to court and joined 4 others walking and talking.</i>

APPENDIX M**CORE LIST OF BULLYING BEHAVIOURS**

- * hitting
- * use of a weapon
- * teasing
- * left out of a group
- * possessions damaged / stolen
- * swearing
- * offensive suggestions
- * untrue gossip
- * rude gestures
- * threatening someone
- * saying nasty things to make others dislike a person

APPENDIX N

Sociogram data - nominations for target students.

	Student A	Student B	Student C	Student D	Student E	Student F	Average *
<u>Reciprocated Friendship</u>	0	0	2	3	5	1	2.0
<u>Negative Friendship</u>	0	0	4	2	0	0	1.3
<u>Leader of Group</u>	3	5	1	15	12	15	7.3
<u>Part of a Group</u>	10	15	9	9	8	7	10.3
<u>Outside of a Group</u>	5	4	14	0	2	0	3.3

* Mean average score for class

APPENDIX O

Teacher Report. Interaction patterns pre and post program.

<u>Observed relationships in the classroom</u> <i>Pre -program</i>	<p>Beginning- slow in forming friendships, no bonding. Yr. 8 holding onto last years relationships. Yr. 7 mature girls bond with Yr. 8 girls leaving rest of Yr. 7 without friends. M – class won't bond with him at all. Protected by last years class, but this class pushes him to the outside. Teacher tells M he is special to her. N and U find weakest link and pick. ½ class observes without doing anything. They think if observers then they are not involved and can't be blamed. Need to be caring of each other.</p>
<i>Post-program</i>	<p>There are no age barriers. Yr. 7 & 8 mix freely together. Mingling between sexes common. Much bigger friendship groups. Not as much division as previously. A more relaxed attitude towards each other.</p>
<u>Friendship grouping in the classroom.</u> <i>Pre-program</i>	<p>C Z Q 'losers' A B 'losers' N H E 'silly group' O I J 'dragged in, but can be sensible'</p>
<i>Post-program</i>	<p>Much wider variety of friendship mixes Students more tolerant of those who are on the 'outer'. Protective of M although they do not mix freely due to his choice to be left alone. Another teacher commented about how well the class got on with each other – sharing, tolerance and bonding.</p>
<u>Main groups in the classroom.</u> <i>Pre-program</i>	<p>(F S T) V – on the outside. 'Cool' group. U doesn't want to be with anyone, but confident enough to move from group to group. (W X) Y – grouped together because they are frequently absent and they need each other to know what is going on. (P L) sensible and hard working. M loner, wants to be part of a group but won't - fears rejection.</p>
<i>Post-program</i>	<p>(U T F W D) (V S R) (Z Y C Q) (N E I B O H L P) (A B G) M W- on the outside. Truancy issues. The boys do not appear to have as much division or clarity between them as the girls do.</p>

APPENDIX P

Sociogram data collected pre and post program.

<u>Reciprocated Friendships</u> Questions 1 & 2	Number of nominations:		Pre	Post
	Girls (N = 14)		28	43
	Boys (N = 13)		27	39
<u>Nominated as Not Liked</u> Questions 3 & 4	Number of nominations:		Pre	Post
	Girls (N = 14)		23	33
	Boys (N = 13)		12	12
<u>Leaders Chosen by Both Boys and Girls</u> Question: Definitely a leader	Number of Nominations:		Pre	Post
	Girls		96	116
	Boys		118	107
	Total		214	223
<u>Part of a Group</u> Question: Part of a group	Number of Nominations:		Pre	Post
	Girls		154	195
	Boys		147	209
	Total		301	404
<u>Outside of a Group</u> Question: On the outside of things	Number of Nominations:		Pre	Post
	Girls		64	84
	Boys		62	62
	Total		126	146

APPENDIX Q

Teacher Interview. Summary of teacher response to interview questions pre and post program.

	Pre-program	Post-program
<u>Perception of bullying behaviour in the classroom.</u>	Undercurrent, secretive. Verbal and emotional. Students know, teacher unaware. Isolated, unpopular students picked on. Don't have the skills to recognize this.	<i>Bullying more verbal. One main offender, recognized leader, not challenged. Boys comfortable with each other Girls-odd skirmish only</i>
<u>What is understood by co-operative learning.</u>	Interacting to get to a common goal.	<i>A process by which students are enabled to share skills collectively when approaching situations. Reaching agreed solutions.</i>
<u>Why use co-operative learning?</u>	Builds caring relationships.	<i>Fosters healthy relationships throughout the class. Encourages active participation by all. Provides a safe environment for exploration. Students work and learn beside those they might not normally choose to.</i>
<u>Expectation of the program.</u>	Care Looking out for each other. Building up. Acknowledgement	
<u>Effectiveness of the program.</u>		<i>Encouraged risk taking. Interacting with all students. Peer encouragement. Variety of approaches to situations. Mature outlook by students.</i>

QUESTION TWO: If you could change anything about how people get on: what would that be?

	Pre-intervention (March 2003)	Post-intervention (September 2003)
<u>Friendship patterns</u>	Change the people who annoy. Most people don't know each other. Change people I don't know. Have friends from other classes.	<i>Everything is O.K. now. They be nice to each other. People don't try to steal your friends now. Would like one big group, not separate groups. Change people who annoy you-even when you are trying to get on with them. The groups have stayed the same.</i>
<u>Inappropriate behaviour</u>	They are silly. They don't pay attention. People to be sensible.	<i>Some people have got more sense now. Sometimes they are sensible now. People just get on. Some silliness.</i>
<u>Bullying</u>	Every now and then name calling. People get angry because of name calling and swearing. (Student) tells teacher. Feel safe mostly.	<i>Call names in a nice way- more as a joke now. Good. Don't bully each other. No-one is bullying and teasing.</i>

QUESTION THREE: What would your idea of the best kind of class be?

	Pre-intervention (March 2003)	Post-intervention (September 2003)
<u>Friendship patterns</u>	People that I know. Friendly, help each other. Kind people. Kids friendly and sporting.	<i>Funny people want people not to take things seriously. To get on well. Friendly. Best class would be with all your friends. A friendly class. Friendly people.</i>
<u>Class organization</u>	People who listen to the teacher. Work handed in on time. Help through problems. Good teacher and trips. More lenient teacher. Everyone playing together.	<i>Less of 'I can't be bothered' attitude. Nice teacher that takes you out for games when the whole class has been good. People do as they are asked.</i>
<u>Bullying</u>	No swearing. No stealing out of desks. No gangs. No bullying in the rest of the school. No pushing. Feel safe mostly.	<i>No bullying.</i>

QUESTION FOUR: How does your class measure up to that?

	Pre-intervention (March 2003)	Post-intervention (September 2003)
<u>Class climate</u>	On scale of 1-10 present classroom is 6.5. Hardly measures up. Long way from that idea. $\frac{1}{4}$ way towards ideal class.	<i>The class is pretty friendly now. Nearly measures up to that. Classroom almost what you want. Little better than it used to be. Sort of. Just about there.</i>
<u>Friendship patterns</u>	Knowing the people and stuff. Don't know some of the kids.	<i>They found it could be fun to participate. Everyone knows each other better. Good thing you have to talk to people you don't know. Group work helped because you work with people you don't normally work with. Working in groups helps working with people you don't normally talk to. People getting on better than at the start of the year.</i>
<u>Bullying</u>	Feel unsafe with one boy foot trips / name calling. Only some days there are two gangs. Both boys and girls are in mixed gangs.	<i>Not much bullying. Feel safe now.</i>