

NESB student perceptions and attitudes to a new online learning environment

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***Abstract:** Students from non-English speaking backgrounds (NESB) represent a growing group of learners in the tertiary education sector of New Zealand. However not much is known about their attitudes and expectations in regard to the learning process in general and online learning, in particular. Introduction of a new online learning management system (LMS) at Victoria University of Wellington provided an opportunity to survey NESB students and compare their attitudes towards different facilities offered by the new LMS and to online learning in general with those of the native speaker (NS) students.*

***Keywords:** online learning, NESB students, attitudes, perceptions*

Introduction

Online teaching and learning delivery modes

In the last decade we have been witnessing a steady increase in the use of online course delivery by tertiary education providers (see for example Bates, 2001; Warschauer, 1998). One of the main reasons for this increase is a growing student demand for more flexibility in their access to higher education, driven by a greater emphasis on lifelong learning, where continual access to education is important to keep pace with change (Morrison and Oblinger, 2002; p. 2). The combination of technology and globalisation has changed the way we do business and created an environment that requires flexibility and a “willingness to undergo frequent retraining and readjustment” (McDevitt, 1997; p.35). These new employment requirements pose questions about the role higher education providers play in helping students acquire competences and skills necessary for lifelong learning (McDevitt, 1997; Collis, 1996).

Although the introduction of information and communication technology (ICT) into education creates new online learning paradigms, which are underpinned by notions of independent and self-directed learning, educators do not have any assurances that new delivery channels and teaching methods will have a positive effect on the learner. As Collis (1996) points out, “students do not automatically have good study skills, discipline or motivation”, and instructors need to create conditions to promote learner autonomy. On the other hand, learner socio-cultural backgrounds, previous knowledge and learning experiences

contribute to their perceptions of the learning process and their own roles in this process. Thus, there is clearly a need to study and monitor online learning processes which are taking place under new flexible learning conditions, in order to develop a better understanding of learners' perceptions and their implications for these new teaching and learning modes. Surveys of online learning need to address the questions of how new technologies and teaching delivery methods impact on the learning process and student attitudes to learning, and how these new teaching and learning modes can be made more effective (Ballantyne, 1997).

NESB students

The focus of this paper is students from non-English speaking backgrounds (NESB). These students are a clearly identifiable and growing group within the tertiary student population of New Zealand. International or foreign fee paying (FFP) students from South-East Asia include a high proportion of NESB students.

According to the Ministry of Education figures, there were 52,700 FFP students in New Zealand in 2001. This represents a 36% increase over 2000, and an 86% increase over 1999 numbers. In the public tertiary sector, there were over 12,500 FFP students in 2001. This number represents 5.4% of the total tertiary roll in 2001. The leading countries of citizenship of FFP students in 2001 were China, Malaysia, South Korea and Japan (in this order). In particular, there continued to be a significant growth in the number of public tertiary FFP students from China, with a 271% increase from 1999 to 2000, and a 209% increase from 2000 to 2001.

Victoria University of Wellington, like many New Zealand Universities, has been working toward attracting higher numbers of international students and toward internationalisation of the curricula and experiences that it offers to all students. In view of this trend, it is important that tertiary education providers in New Zealand collect and analyse data on attitudes and perceptions of this group of learners, and ensure that their learning needs, perceptions and preferences are considered when new teaching and learning approaches are introduced.

In addition, learners' background knowledge and socio-cultural and educational experience may contribute to their attitudes towards new teaching and learning paradigms, especially those which challenge traditional teacher-learner role distributions in the education process. Language proficiency levels of NESB students may also be a factor in their ability to cope with the new teaching and learning delivery modes. Therefore, when new online learning environments are introduced it is reasonable to expect differences in perceptions and attitudes to online learning, between the NESB and NS (native speaker) student groups.

To date, however, there have been limited studies that investigate NESB student attitudes to online learning of subjects other than second or foreign languages (Briguglio, 2000).

The Survey of Student Perceptions and Attitudes to a New LMS at VUW

This paper outlines the results of a survey of NESB student attitudes and perception to online learning and compares them with those of English NS students.

Background

A new learning management system (LMS) (Blackboard) was introduced at Victoria in 2001, when it was used as a pilot by a limited number of schools and departments. As a result of positive feedback, the system was made available to all schools on an optional basis. By the end of 2002 approximately 243 courses utilised the facility. The use of the LMS was

primarily focussed on complementing face-to-face teaching; however, a small number of courses were offered in a distance mode.

Methodology

This survey was conducted at the end of the first trimester, 2002. The primary aim of the survey was to identify student attitudes and perceptions to the use of the LMS and its integration within their courses. At that point no attempt was made to investigate how the actual learning outcomes were affected by the introduction of the LMS. The importance of perceptions is highlighted by O'Malley & McCraw's (1999; p.3) argument, that "student perceptions may be more important than reality, i.e., decisions, many times, are based on perceptions".

The survey contained 58 questions, designed to elicit both quantitative and qualitative data. The main part of the survey included a set of multiple choice items, based on a 5-point Likert attitudinal scale, with 5 representing strong agreement and 1 – strong disagreement. Students participating in the survey were required to indicate their level of agreement or disagreement with statements related to the usage, usability, or usefulness of the online learning environment. True medians were calculated for the quantitative data, where possible, by applying a formula for computing a median under the grouped frequency distribution, developed by R. Renner and C. Hall (see the references section for further details). In the current survey lower medians represent higher agreement, as the reverse value scale was used in the questionnaire. In processing qualitative data, researchers looked for identifiable patterns and tendencies (for more details on the survey methodology see Marshall, 2001, 2002).

Participants

Surveys were sent to all first trimester courses (n=80). Results were obtained from 46 courses, 10% of which were postgraduate and 90% undergraduate papers. Response rates varied between 14 and 34%, consistent with the lower rates observed with online surveys (Sheehan, 2001). The papers surveyed encompassed a full range of subjects from all of the university faculties and the demographics were consistent with those obtained for all VUW students, suggesting that the survey responses were representative of the wider student population.

In the first part of the questionnaire participants were required to indicate whether English was their first language. On the basis of their responses to this questions participants were identified as either NS or NESB students. From the 707 student responses, 593 (84%) were from NS and 112 (16%) from NESB students. While the demographics of the two groups were relatively similar, a number of slight differences were identified in the age distribution (see Figure 1) and employment patterns of the two groups. NESB students were on the whole older than NS students and less likely to be employed for more than 10 hours a week on average.

NESB Students



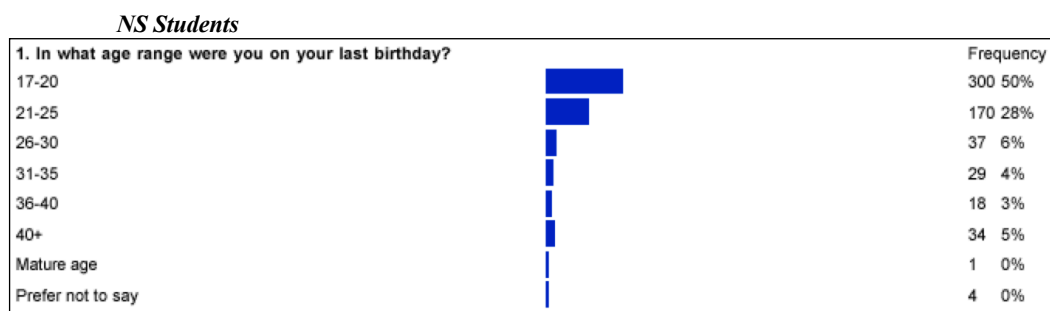


Figure 1: Student Age Distribution

As far as access to technology was concerned, the survey shows that a higher proportion of NESB students owned a computer (NESB - 83%; NS - 72%), and this computer tended to be more modern (Pentium II, III or equivalent: NESB – 50%; NS – 32%); but that NESB students were less likely to have a printer (NESB – 57%; NS – 83%). However, despite the fact that NESB students were more likely to own a computer, a higher percentage of them used the LMS system from campus (NESB – 78%; NS – 69%), as well as from their home computers. Overall, NESB students spent more time a week using the LMS and visited it more often (Table 1).

25. How many hours a week (approximately) did you spend on the LMS?		
	NESB	NS
<1 hr / week	27%	38%
1-5 hrs / week	43%	48%
5-10 hrs / week	18%	8%
10-20 hrs / week	6%	2%
20-30 hrs / week	1%	0%
>30 hrs / week	1%	0%

26. How many times a week (approximately) did you access the LMS?		
	NESB	NS
<1 times / week	8%	10%
1-5 times / week	36%	55%
5-10 times / week	31%	22%
10-20 times / week	14%	7%
>20 times / week	9%	3%

Table 1: Time and frequency of access of the LMS.

NESB students also rated themselves higher, on average, in terms of their computer literacy than NS students: 22% of NESB students described themselves as expert computer users; while among NS students, only 18% referred to themselves as experts. The proportion of students who thought their computer literacy was at an intermediate level was the same in both groups (69%).

Access and Usability

For the most part, neither NESB, nor NS students had many problems with setting up their accounts (median=1.4 for both groups) or accessing the LMS website (median=1.4 for both groups). However, for those who had difficulties, nearly twice as many NESB students (21%) than NS students (12%) reported experiencing some problem using the system. This is consistent with the results of earlier surveys of NESB students on the English Proficiency Programme at VUW, which also revealed a small but significant group of NESB students who needed additional help with computer-aided learning.

Course Content Facilities

Both NESB and NS students gave the online delivery of course materials, in general, and lecture notes, in particular, the highest usefulness rating among all online facilities (median: NESB=1.2, NS=1.1). NESB students who chose to submit additional comments on the course material facility (n=33, 29%), provided mainly positive feedback, for example,

“... the best thing this university has done in the whole 4 years I have been here.”

“I think that as a distance student that having the lecturers PowerPoint presentation up and info regarding assignments has been great and I use the resources relating to the course so much because we aren't face to face.”

Other comments provided by NESB students indicate that they prefer to have lecture notes available online before lectures, as this makes it easier for them to take notes in class. Clearly, NESB students find it challenging to follow local lectures (delivered in English with a native speaker in mind) and take good notes at the same time, especially when *“the lecturer is going faster than a bullet train”* (Student Comment).

Both groups of students commented positively on being able to check their test results and grades online, as well as get immediate feedback on their tests and pop quizzes, e.g.

“...I loved the fact that 5 minutes after sitting the tests i could go and see if i got the answers right.”

NESB students also expressed an interest in viewing class averages to see how well they were doing compared to the rest of the class.

The announcements facility got the third-highest usefulness rating from both groups, but NESB students checked the announcements section much more often than NS students (Median: NESB=1.6, NS=2.1) and found announcements slightly more useful than NS (Median: NESB=1.6, NS=1.8). Both groups generally preferred having announcements displayed within the LMS rather than receiving them by email, but there was a group of students (NESB=11% and NS=19%) who were of an opposite opinion. These students were mainly postgraduates, who generally displayed a preference for e-mail based communication (see Marshall et al., 2002, for more details and possible reasons).

In their open-ended comments about announcements (n=27, 24%), NESB students asked for the announcements to be regularly updated, better organised / structured and presented in a more consistent manner:

“...announcements should be dated and put in order of latest to oldest ... that way they'll be more organised. also, any announcements that are no longer relevant should be deleted to avoid confusion and clutter on the notice board...”

“... not so much set up, but how the course people used it, could of put correct info on, more timely, find the right stuff under the right heading ... ”

This last comment represents the most common student expectation related to the online learning environment: timeliness of published information, which needs to be regularly updated, and clear and consistent in structure and presentation. Based on the nature of these comments, and on the fact that the majority of NESB students are active users of the Internet (92% of NESB student who own computers have an Internet connection), it appears that these learners expect web-based course pages to be at least up to the standards of a good web site.

Communication Facilities

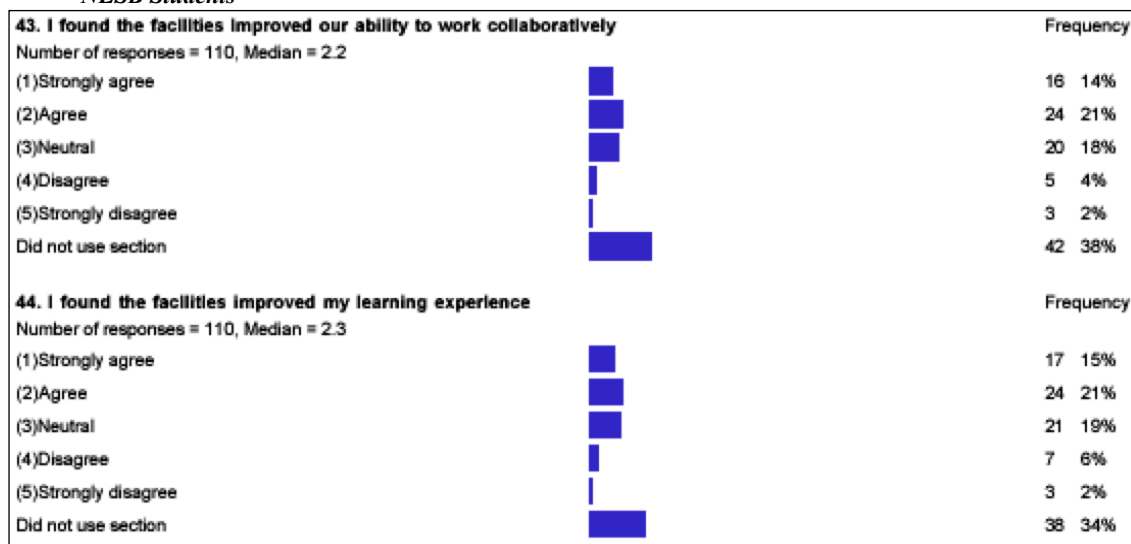
Overall, communication facilities, which included group collaboration tools and online forums, were rated lower than content facilities, both by NESB and NS students, albeit the

medians of student attitudes remained in the positive half of the ratings' area. These lower ratings are likely to be related to low quantity and quality of use of the communication and group work facilities. This finding is consistent with the University of Texas at Austin (2001) survey of the use of their LMS, which also points out that "users largely failed to take advantage of advanced features that can enhance collaboration and learning". Online communication tools were used in the majority of courses as a device for obtaining course related information and help (FAQ-type use), while in some cases these facilities were not used at all. The reluctance of some lecturers to introduce online communication into their courses and lower ratings given to online communication facilities by students may well be due to the relative novelty of these tools in the teaching and learning context, and therefore the lack of experience and understanding of how to use online communication and collaboration to promote deep learning and collective knowledge construction. It has also been acknowledged in the literature that the effective use of online communication facilities requires more advanced levels of learner autonomy from students, as well as e-moderation skills from the instructor (Salmon, 2000; Warschauer, 1996, 1998; Collis, 1996). A culture of productive collaboration needs to be established and maintained, if the goal is to use online discussion and collaboration facilities as a learning, rather than as a question-answer tool.

In their answers to questions related to facilities for working in groups, both NESB and NS students were overall positive about being able to do group work online, but not quite as positive as about online content delivery. NESB students rated their learning experiences using group facilities slightly higher than NS students (Figure 2). However, students of both groups clearly felt disappointed that these facilities were largely under-used in their courses:

" We were never introduced to it and no one used it. I think the use of this function should be initiated by tutors to encourage the use of it and students should be able to help each other out by using this function. "

NESB Students



NS Students

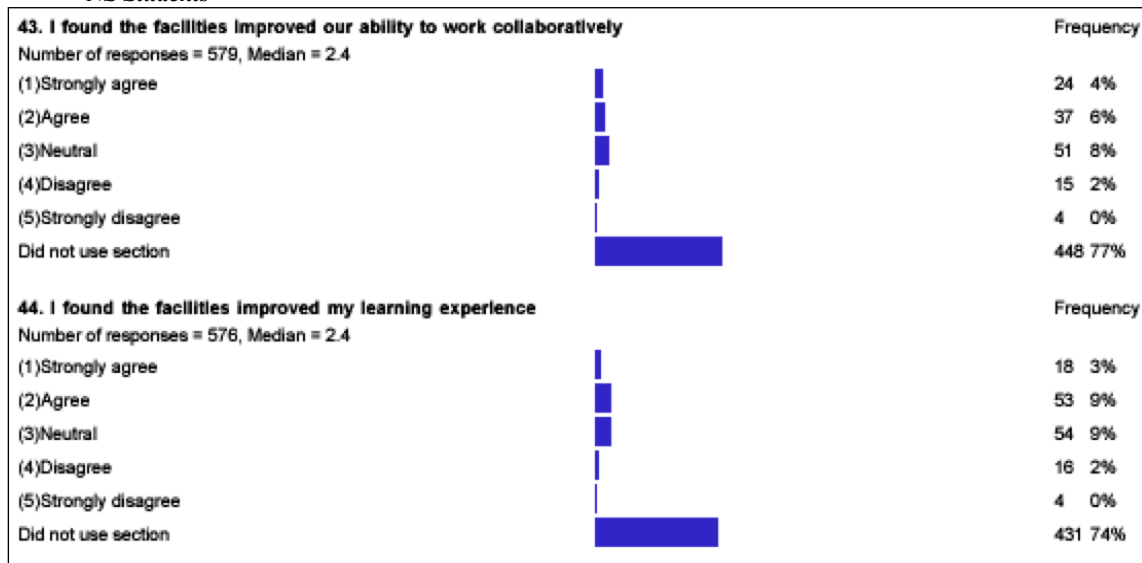


Figure 2: Group Facilities, Usefulness Rating

The fact that online group work was so under-utilised, is particularly disappointing because research findings indicate that it can make a significant contribution to group learning outcomes (Baskin, 2001).

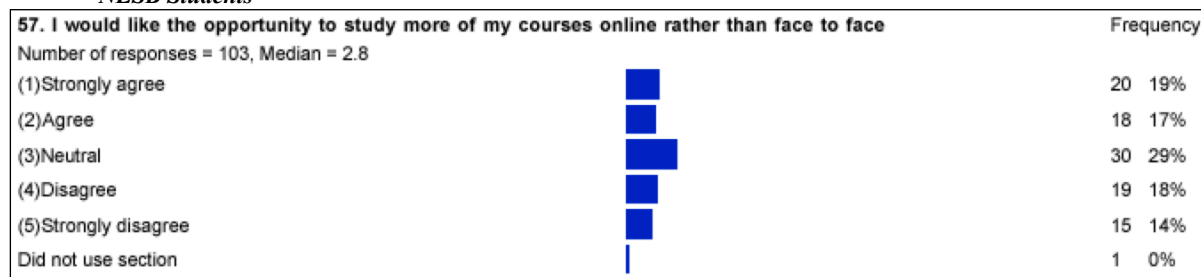
Interestingly, despite its rating as the third most valuable facility in the open comments' section of the survey, overall the online discussion facility was rated lower by NESB students compared to other LMS facilities. Although the medians for the discussion facility were still located in the positive half of the scale (median NESB=2.4; NS=2.7), in the case of NS students it was very close to a neutral attitude. It is likely that low usefulness ratings of the discussion forum are not related to the facility as such, but to the way in which it was used by instructors and learners. It is particularly disappointing to see the lack of social and pedagogical interactions in online courses, as this type of interaction lies in the core of the development of learner autonomy and collaborative knowledge construction (Little, 1996).

Student attitudes to online learning

Overall both groups of students agreed that the LMS enhanced their study (median=1.8 for both groups). Responses to four questions related to attitudes to online learning in general show that, on the whole, both groups of students felt very positive about using Internet based facilities as part of studying for their courses (median: NESB=1.6, NS=1.7), and wanted to see more use of Internet facilities to assist their study (median: NESB=1.6, NS=1.8).

However, an important difference between the two groups was revealed in their preferences in relation to studying online rather than in a face-to-face mode. Whereas the median of NESB students' replies to this question was in the positive (median NESB=2.8), NS students clearly did not want face-to-face courses to be replaced by online courses (median NS=3.7 – higher than 3).

NESB Students



NS Students

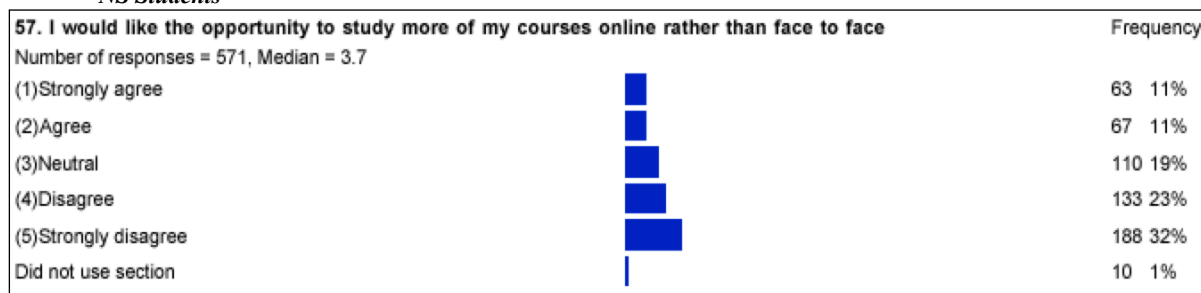


Figure 3: Study Online Instead of Face-to-face

The open-ended comments' section of the survey showed that NESB students were positive about such usability features of the LMS as 'ease of use and access', 'navigation', 'convenience', 'online access', 'one place to look for materials', and 'control in accessing information'. Usability features were rated highly by 27% of the NESB students who submitted positive comments about the system. Negative comments, submitted by NESB students were mainly to do with under-utilised tools, facilities and functions, empty folders and course navigation buttons that did not do anything. Students' comments also highlighted the importance of access to online help.

Directions for future research

The survey provided us with a snapshot of learner perceptions of the use of the LMS, and their attitudes towards the usability and usefulness of various feature of this online learning environment. The results are useful insofar as they help us identify areas for attention and improvement, but a different kind of research methodology is needed to investigate an online pedagogy. To do this we need to observe how particular facilities and teaching techniques are used in specific learning situations. More detailed case studies and longitudinal studies are needed to gain better understanding of learning possibilities that exist within new flexible learning paradigms.

4. Summary and Conclusions

Overall it appears that our initial assumption that NESB students may not be prepared for less traditional modes and approaches to teaching, was not confirmed. In fact, based on their survey replies, we can assume that NESB feel more positive about online learning vis-à-vis face-to-face teaching, than NS students, despite the fact that these students experienced more technical difficulties using the system. NESB learners also spent more time a week using the LMS and visited it more often. They were confident computer users and had high expectations in terms of the standards of course web sites, especially in regard to their regular updates, structure, clarity and consistency in presenting information. They were disappointed with the way computer mediated communication tools and group facilities were used by their instructors and fellow students, and wanted better moderation from the former and higher

levels of participation from the latter. As a result of the survey, online group activities, in particular online discussion and collaboration, have been identified as areas that require special attention and careful consideration in the context of online teaching and course design.

All in all, the survey shows that NESB students were inclined to think critically about their learning and looked for ways to improve this experience. One of the important characteristics of independent learners is their ability to adapt to new learning context and conditions, by becoming aware of the learning process, evaluating their own progress and identifying aspects which help or hinder their learning (McDevitt, 1997). It appears that the NESB students who took part in the survey were on the right track to acquiring online learning skills necessary for the lifelong learning culture of today's post-industrial society.

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