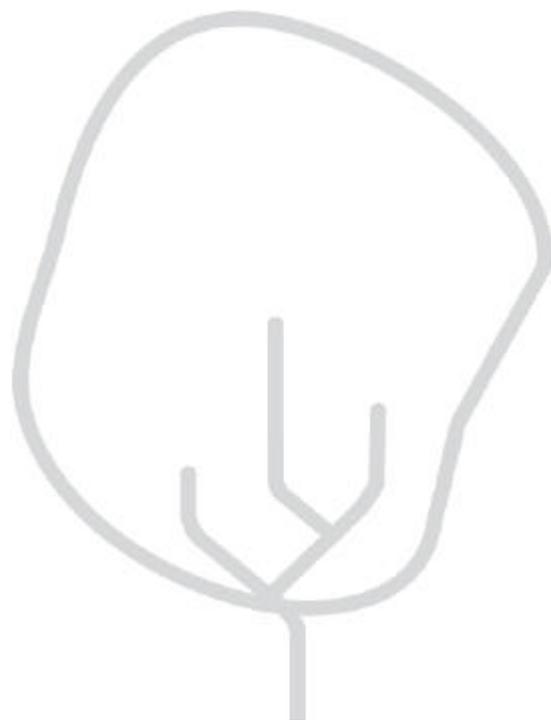




Improving tertiary student outcomes in the first year of study

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1. Introduction

Background

Retention, persistence and completion in post-school education have been the focus of much attention in recent years—particularly in the USA, UK, Australia, and now in New Zealand. Governments throughout the Western world increasingly expect improved learner outcomes for money spent on post-school education. Data on early student departure highlight their concerns. For example, in the UK, Yorke (1999) estimated that such departure cost ,100 million a year. In New Zealand, a recent Ministry of Education report (2005, cited in Gerritsen, 2005) showed that, from 1998 to 2003, 33 percent of the equivalent full-time student (EFTS) allocation was taken up by students who dropped out in their first year of study. Consequently, the government is taking great interest in how well institutions retain learners. Recent policy documents signal increasing accountability for ensuring that students who enrol in programmes are retained until they complete them. Non-completions above a government-set benchmark result in financial penalties for the institution (Ministry of Education, 2002a).

In addition, New Zealand's demographic projections indicate a declining number of traditional Pākehā tertiary students but a growing number of non-traditional tertiary students—Māori, Pasifika, and Asian. Māori students, previously seriously under-represented in tertiary education, are increasingly seeing the necessity for qualifications. Judging by the 72 percent increase in enrolments in one year at Te Wānanga o Aotearoa, they are selecting Māori-friendly tertiary education institutions. Given the enrolment cap placed on this wānanga, the challenge is for mainstream tertiary institutions to adapt their processes and practices to become more Māori-friendly and cater for the increasing number of Māori wishing to avail themselves of tertiary education. Government policy also aims to increase access and participation in tertiary education. Three of the six strategies in the government's *Tertiary Education Strategy 2002–2007* (Ministry of Education, 2002b) aim to increase the accessibility and relevance of tertiary education for a wide range of students who have not traditionally enrolled in tertiary education.

A consequence of this policy is that tertiary education institutions will face an increasing diversity of students with varied learning needs and differing cultural capital. To improve these students' outcomes, it is imperative that these institutions have access to information that will enhance their capability to improve their success rates. In 2002, the Ministry of Education anticipated the need for research to identify ways in which the success of diverse students could be improved. It commissioned a research synthesis to gauge the impact of student support services and academic development programmes on student outcomes in undergraduate tertiary study. The full research synthesis was published in 2004 (Prebble, Hargreaves, Leach, Naidoo, Suddaby & Lepke, 2004). One aspect of this research synthesised findings from 146 studies. This resulted in 13 propositions that offered practical ideas for improving retention. The propositions were widely publicised by the Ministry, reported at conferences, and published in journals (Zepke & Leach, 2005; Zepke, Leach & Prebble, 2003). They were well received, particularly in polytechnics. Zepke and Leach presented them as keynotes, seminars and workshops at nine institutions and conferences in 2004 and 2005.

One task set for the researchers by the Ministry was to identify New Zealand research on retention. While a few institutional studies were found, the researchers discerned a need to research the New Zealand scene more extensively. Thus the TLRI project was conceived.

2. Research aims and objectives

The research question

Our research question was:

What can New Zealand tertiary education institutions and their teachers do to adapt their current processes and practices to improve retention of, persistence and completion by diverse students in their first year?

Aims and objectives

The project aimed to:

1. identify policies, processes and teaching/learning approaches used by tertiary education institutions to improve the outcomes of diverse first-year students;
2. investigate the perceptions of second-time students who returned to study, to find out whether they had ever considered withdrawing from study and, if so, what enabled them to stay;
3. find out what teachers and administrators of first-time students thought was behind early student departure and what could be done about it;
4. synthesise the information gathered to develop ideas for improving diverse students' outcomes;
5. develop a partnership with tertiary education institution practitioners so that the synthesis is validated as suitable for practice in tertiary education;
6. develop guidelines for future practice in partnership with tertiary education institution practitioners; and
7. disseminate the guidelines for improving diverse students' outcomes.

Strategic priorities

This project addressed the TLRI strategic priorities in the following ways.

Strategic value

1. *Reducing inequalities*

The project addressed the learning needs of students who are currently under-represented in tertiary education.

It was built on international research literature advocating that institutions and teachers adapt their practice to the cultural capital of students belonging to groups that are currently under-represented in tertiary education.

The research will produce guidelines for practice to address the learning needs of currently under-represented groups as well as mainstream New Zealanders.

Students who currently don't survive or achieve in the tertiary system will benefit from the project.

2. *Addressing diversity*

We recognise that in an increasingly diverse, multicultural world tertiary education institutions need to adapt their processes and practices to cater for student diversity.

The project aims to promote the retention, persistence, and achievement of students from diverse backgrounds and with diverse learning needs.

We have developed some guidelines for practice (see p. 20) that adapt teaching and learning in tertiary education institutions so as to value and be relevant to students' diverse cultural capital.

The data from which the practice guidelines have been developed were gathered directly from the students themselves.

3. *Understanding the processes of teaching and learning*

We identified strengths and weaknesses of current pedagogical practices, including from institutional, teacher, and student perspectives.

4. *Exploring future possibilities*

Identified guidelines for future practice.

Research value

1. *Consolidating and building knowledge*

The project is built on an extensive synthesis of international research and theory.

We have synthesised institutional, teacher, and student knowledge about learning and teaching to improve learning outcomes.

Our research goes beyond the prevalent "integration" approach (see discussion under "Research design") in its search for data on ways to improve student outcomes.

We have expanded theoretical foundations by developing knowledge about the emerging "adaptation" approach (discussed under "Research design") to diversity in tertiary education.

2. *Identifying and addressing gaps in knowledge*

The project has gained from an internationally emerging approach to improving student outcomes.

It has addressed an identified gap in New Zealand research and knowledge.

3. *Building capability*

In the course of the project researcher-practitioners in seven institutions became engaged in formal quantitative and qualitative research.

We developed a research team and good collaborative practice. These points are expanded in the descriptions by individual researcher-practitioners of how their capacities were expanded.

4. *Focusing on the future*

The project recognised diversity by building the research on an emerging approach to research on student outcomes.

It identified innovative policy and practice in improving student outcomes.

Practice value

1. *Likely impact on practice*

The project was built on the concept of the teaching–research nexus. The research drew its data from teachers, who were also used to validate the synthesis of data. The research also provided the basis for the guidelines for teachers, which were designed to influence their practice.

The project developed praxis by encouraging teachers to reflect on their own practice, consider student views and, as a result, change their practice.

The researchers gained valuable insights to inform their own teaching practice.

2. *Relevance to practitioners*

The research focused on practice at institutional and classroom levels.

3. *Transfer to the learning environment*

The project focused on institutional processes and teaching practices to improve tertiary student outcomes such as retention, persistence and completion.

4. *Potential benefits to students, teachers and communities*

The project resulted in improved teaching practices and administrative policies and processes. The research identified the practices and processes that value diverse cultural capital and learning needs. This will benefit students' outcomes, teachers' practices, and institutional processes. Potentially it will help reduce human and economic wastage. This could have positive impact on the health of New Zealand communities.

3. Research design and methodology

Research design

The research design was influenced by key findings in the research synthesis. This identified two distinct approaches to improving student outcomes (Prebble, Leach & Zepke, 2004; Zepke & Leach, 2005). In one, tertiary institutions adopt policies and practices to integrate students socially and academically into the institution’s particular culture. This most common approach was referred to as an “integration” approach. In the other, institutions adapt their administrative and academic cultures to meet the diverse interests of their students. This, an emerging approach in the face of increasing student diversity, was referred to as an “adaptation” approach. A strong theme in the adaptation literature is that all students bring cultural capital to their learning. Where this is valued, they are more likely to succeed. This project, as reflected in the title, set out to produce research-based guidelines for how institutions and teachers could use the adaptation approach to improve student outcomes while not neglecting data that informed the integration approach.

To research both integration and adaptation discourses using a single data-gathering tool was too complex a task. We decided to use a holistic (360 degree) research design to seek the views of institutional stakeholders with a vested interest in whether students succeeded or left early. Consequently, the research design included a survey of 681 students who had enrolled for the first time in 2003, interviews with 51 of these students, and discussions with another 70 in 12 focus groups. We also conducted an open-ended survey of 137 teachers of first-time students and interviewed 30 administrators who looked after the interests of first-time students. Finally, 64 teachers and administrators validated the guidelines produced from a synthesis of all the data gathered, in interviews, focus groups and written responses. Administrators and teachers were selected because they worked with first-time students. Students who took part all had returned for a second period of enrolment in their institution.

The project involved seven tertiary education institutions. The institutions themselves were diverse: two universities, four polytechnics, and one college of education. They varied widely in their size, mission, characteristics, and geographical location. Two of the institutions offered programmes at a distance and two others had a significant Māori and/or Pasifika presence. A schematic profile of the institutions is provided in Table 1.

Table 1 Profiles of the seven participating institutions

Institution/Profile	A	B	C	D	E	F	G
Degree programme	•		•		•	•	
Sub-degree programme		•		•	•		•
Large institution		•	•			•	
Medium institution	•						•
Small institution				•	•		
Mixed delivery			•		•		
Face-to-face delivery	•	•		•		•	•
Rural hinterland				•	•		
Māori presence		•		•			
Pasifika presence		•					

Sampling design

The sampling design posed an important methodological issue: whether to gather our data from a national representative sample of students, teachers, and administrators, or gather and interpret the data as a series of seven case studies. For a variety of reasons we pursued a case study approach, using purposive sampling. One reason originated in the retention literature itself. Braxton and Lien (2000) showed that empirical support for academic integration as a major factor in retention varied in strength for multi-institutional and single-institutional studies. The importance of academic integration was well supported in multi-institutional studies, but less well in single-institutional studies. Tinto himself (1993) stated he was not proposing “a systems model of departure” (p. 112). He emphasised the importance of institutional differences. McInnis, James and Hartley (2000), although reporting results from multi-institutional studies themselves, also recommended that researchers undertake single-institutional case studies. Such investigations would bring out factors of single institutions that multi-institutional studies might miss.

A second consideration lies in a recent conceptualisation of teaching adults. This supports the assumption that data for individual institutions could be different from those from multi-institutional studies. Fenwick (2005) identified as an important strand in adult teaching and learning the view that education is situated practice. Rather than being located in some collective political, intellectual, or pedagogical purpose, adult education is performed “in the habitual practices of a particular site or community” (p. 9). This suggests that some answers to the early departure puzzle may be found more readily in data obtained from single institutions than from multi-institutional studies.

A third consideration persuaded us in favour of an approach that would recognise institutional differences as well as give us an overview of what was happening in all seven institutions. A requirement of TLRI is that funded projects improve both learning and teaching and help build research capacity. We felt that generalised results across many institutions had less impact on institutions and would encourage “avoidance” behaviours. Data that spoke directly to teaching and learning in specific institutions would, on the other hand, have more impact on practice. Moreover, TLRI protocols require that project holders collaborate with teachers who are both practitioners and researchers. Data that enabled such researcher-practitioners to write up their own institutional retention challenges as case studies would satisfy TLRI’s collaborative and capacity-building objectives. However, the decision to enable our partners to construct institutional case studies is not cost free. It means we cannot generalise our findings across all New Zealand tertiary institutions. So, in this project we report findings from individual institutions and identify some trends that emerged across all of them.

Reflections on the research design and process

The project ran remarkably smoothly. Deadlines were kept (with only few exceptions), so we were able to report results as soon as the data from each research instrument were analysed. As a result the project has already generated a number of papers accepted for publication in New Zealand and international journals (Zepke, Leach & Prebble, 2005b; in press) and presentations at conferences (Prebble et al., 2004; Leach, Zepke & Prebble, 2005; Zepke et al., 2005a). Together, these papers report the results from all of the instruments used—Zepke, Leach, Prebble, Henderson et al. (2005) summarise and synthesise the data for the whole project. More importantly, perhaps, given the practical intent of the research, the researcher-practitioners involved in the project (Campbell, 2005a, 2005b; Colman, 2005; Dewart & Rowan, 2005; Leadbeater, 2005; Rowan & Dewart, 2005; Wilson, 2005) also prepared and presented a number of case studies to institutional audiences. This enabled individual institutions to begin addressing their own retention issues.

Of course, there were a number of things that with hindsight we would now change. These relate to sampling, the student survey questionnaire used, the privacy of institutions, and the nature of the partnership.

Whether to have a national representative sample or to work with case studies also affected the sampling of sub-populations. Because of our decision to take a case study approach, sub-populations sampled in some institutions were not large enough to use credibly in our analyses. For example, we were never able to obtain usable breakdowns of Māori or Pasifika responses for the student questionnaire. Sub-population numbers were rarely large enough to analyse using more than descriptive statistics. The dearth of Māori and Pasifika responses in the questionnaire was compensated in the student interviews and focus groups, where some rich data were obtained. This reinforces the view that written questionnaires are not the best way to get information from Māori and Pasifika people. International students were also largely absent from student questionnaires, although they featured strongly in the responses of teachers and in the interviews with administrators. Consequently, we were able to establish a “staff” view about strategies to assist international students to succeed, but not the views of the international students themselves.

While we trialled the student questionnaire with nearly 70 people, and changed it as a result, we nevertheless feel it could have been improved. Specifically, a number of items could usefully have been subdivided. For example, “there was too much going on in my life” turned out to be the most important factor for students in thinking about withdrawing and actually doing so. With hindsight, this general item could have been divided to gain a better picture of what made life so complicated as to suggest early withdrawal. Further research is needed to clarify the non-institutional factors and then evaluate their importance in relation to institutional ones. Once the data have been collected and analysed, some “if only” thoughts are probably unavoidable. Nevertheless, our experience suggests that brevity in questionnaire design is not necessarily a virtue.

In terms of privacy, we decided early on not to reveal the identity of institutions in our publications. As it turned out, this was just as well. Results from the student questionnaire, in particular, could have been embarrassing for some institutions. However, this decision also had an adverse effect in that the authors of papers could not acknowledge the contributions of research partners and their institutions. It also prevented their readers and listeners from being able to contact the institutions that were using successful practices.

The meaning of partnership between researchers and researcher-practitioners remained problematic throughout the project. The proposal envisaged an interdependent “centre-periphery” relationship. The whole team initially met to agree on research protocols, including questionnaire design and use of data. The final shape of research instruments was negotiated at a distance. Email and audioconferences were used to share information and take stock of progress. We envisaged that researcher-practitioners would collect the data in their institutions, feed it to the researchers at Massey who would report on the “national” data, and then use their own data to prepare their own case studies if they wished. Clearly, this divided the work into centralised and localised spheres of responsibility, without the two necessarily overlapping. Researcher-practitioners were not involved as partners in the analysis or writing up of “national data”, while researchers had no knowledge of how data were reported in the case studies. While a number of attempts were made to share information and power, each group felt excluded from the analysis and reporting of the other. This is an issue that needs to be addressed in similar projects, perhaps by including information-sharing sessions such as seminars in the proposed project structure.

Relationship building

Nevertheless, relationship building has been central to the success of this project. With seven different institutions involved, it has been important for people to meet and get to know one another. A full-day face-to-face meeting was arranged at the beginning of the project in 2004. In our view, this was critical to the success of the project and seems to have facilitated commitment to the project and the project team. A second face-to-face meeting was held early in 2005 and a final, celebratory meeting was held in October 2005. During the early stages of the project, leading up to the data-gathering phases, we also held audioconferences. These gave all members the opportunity to influence the development of the instruments and have input into decisions about data-gathering

processes. Throughout the project we used an email list to maintain contact with the whole team, keeping members informed about progress and issues and circulating each of the papers written as part of the project. This relationship building also included the selection of institutions and researcher-practitioners who were interested in and committed to the focus of the project. The quality, interest, and dedication of our research team members have been an important part of our success.

Relationships were also important within each partner institution. Researcher-practitioners used a variety of strategies to maintain relationships with administrators, teachers, and students that ensured their participation in the project. Providing food and drink such as chocolate fish, tea, coffee, and fruit juice at student focus groups worked well. Another strategy was to keep in contact with students and teachers, preparing them for questionnaires and interviews by phone and reporting selected results to them. In one institution a participating teacher was delighted to find that some of her comments had been included in a paper written by the researchers. According to some of the researcher-practitioners, the closer they were to the students, the better the responses. For example, one of the researcher-practitioners found their role as a staff developer particularly useful in “getting to” students and teachers. Another researcher-practitioner, not so closely involved with respondents, saw it differently—that it was precisely the distance from students that enabled them to obtain in-depth data.

Barriers

Teachers

The very open-ended nature of the questions in the teacher survey may have been a barrier to teacher participation. Because we wanted details about attitudes and practices, we designed the survey with only a few questions that each required an extended response. As a consequence we received 137 completed questionnaires rather than the 150 we had hoped for. Responses across institutions also varied, with some low return rates.

Students

In some institutions it proved very difficult to identify courses with high retention rates, so our data from successful courses is limited.

Research team

In mid-2005 one of our researcher-practitioners moved to take up a position in another country. This meant that the guidelines for practice were validated in six rather than seven institutions and that student interviews were not completed in that institution.

Ethical issues

We anticipated and planned for the ethical issues that were likely to emerge. Ethical approval was gained from Massey University early in the project (18th March 2004 under Protocol 04/6). Where necessary, approvals were also sought from individual partner institutions. In one instance the chairperson of an institutional ethics committee contacted the researchers to clarify some points before approval was given. The key ethical issue that emerged during the project was the identification of partner institutions mentioned above. The outstanding issue here is that this report requires identification of the researcher-practitioners and their institutions when anonymity was promised as part of the institutional consent to participate.

4. How the project contributed to building capability and capacity

The project team

Nick Zepke, Linda Leach, Tom Prebble, and Sue Purnell (Massey University)

Jenny Leadbeater (Northland Polytechnic)

David Coltman, Nika Solomon, and Maree Gibson (Manukau Institute of Technology)

Alison Campbell (Waikato University)

Bonnie Dewart and Linda Rowan (Universal College of Learning (UCOL))

Stewart Wilson (Wellington Institute of Technology)

Judy Henderson (Christchurch College of Education)

Capability and capacity building

In this section we focus on the practice values of this project and TLRI Principle Six. The relevance to strategic value, research value, and TLRI Principles One to Five was outlined in Section 2.4.

1. *Builds capability of researchers to undertake quality research*

Members of the research team have developed their capability to:

- design, conduct and manage a successful multi-institutional research project;
- budget for a two-year, multi-institutional study;
- design surveys;
- design interviews and focus groups;
- analyse data from single and multi-institutional data;
- disseminate findings at presentations, conferences, and workshops;
- write up findings for publication in peer-reviewed journals; and
- work as a member of a research team.

2. *Builds capability of teachers to improve their teaching through engaging with the findings of the research*

Dissemination of draft guidelines for practice has already resulted in teachers in a number of tertiary education institutions engaging with the ideas developed and consequently reviewing their own and their institutional practices to improve student outcomes.

Presentations to management teams within institutions have met with positive responses and a willingness to engage with the findings within their organisation.

3. *Deepens researchers' understanding of teaching and learning by engaging with teachers*

All of the researchers involved in this project are also teachers. They have identified ideas for their own teaching practice from the project findings.

4. *Enables teachers to gain expertise as teacher-researchers, supported by researchers*

Each of the seven researcher-practitioners has developed expertise as teacher-researchers, in:

- planning and conducting a research project;
- working as a member of a research team;

- conducting surveys;
- conducting and recording interviews and focus groups;
- analysing data from their institution; and
- presenting research findings to colleagues and at conferences. It is noteworthy that 16 papers and presentations have already been published or presented. Four others have been submitted for peer review. A book is planned for 2006.

Views of the researcher-practitioners

In the following section the researcher-practitioners present their own views on how the project developed their expertise and built capability in their institution.

Alison Campbell

This TLRI partnership was good for me personally, as it got me further involved in research into education practices and so was of considerable benefit in building my knowledge and skills in this field. I would hope there are spin-offs for the institution. It also built my research capability in this particular area. I worked with a colleague on data collection and some of the interviews. He was already active in educational research—I think I probably gained considerably more than he did from this relationship.

The potential is there for this project to help improve teaching practice through engagement with the research findings, not so much for me as for colleagues. The critical thing will be to get them to take the findings of the project on board. The benefits are wider than this teacher focus, since the project has also highlighted ways that our administrative practices can help or hinder student retention. There is also the key point that for some students the decision on whether or not to continue with their studies is strongly affected by factors beyond the control of the institution (this is why measures of completion and retention are such a blunt instrument when it comes to measuring teaching quality).

The project was helpful for me as a scientist-science researcher “crossing over” to research in education, in that it exposed me to expertise and knowledge systems that I was relatively unfamiliar with. It has also been good to be part of such a team, in that (my colleagues in the Centre for Science and Technology Education Research excepted) it can be a bit lonely in the science tearoom—there are few others there who seem interested in looking at educational practice.

David Coltman, Nika Solomon, and Maree Gibson

Partnerships are rarely equal, but rather represent dynamic relationships in which responsibilities and power change, depending on the context. For us, having the research direction and focus set at the beginning meant that we had a passive role in the project as a whole, as conduits for the collection of data.

In spite of the circulated literature, those involved in the data collection had difficulty in buying into the research project. It was also difficult to involve other departments in the research process. Generally, they were not interested in the project—which may have been due to a lack of perceivable benefit or relevance.

While funding was provided by the research project for the collection of data, there was no funding allocated for data analysis at an institution level. This means that the data collected for our own institution has not been adequately explored, nor has its relevance to our context been teased out.

For the researcher-practitioners, there has been learning about the difficulties of the role of a researcher. All are about to undertake further research for academic studies (Masters and PhD programmes) and their experience with this project has contributed to their understanding of the potential hurdles and obstacles for a researcher, as well as the power that exists in the research paradigm.

The development of capability within our institution will depend entirely on how well the suggestions are implemented in practical terms. As yet, most lecturers are unaware of the findings, which need to be presented and debated to find ways of influencing practice. When lecturers filled out the feedback sheets there was a large amount of discussion about each recommendation. Overall, feedback generally seemed very positive: the recommendations were seen as useful and applicable to our educational environment. A number of people found some of the recommendations a little too idealistic. There were also a number of comments that the research project did not turn up any new information—however, all discussion means that lecturers are engaging with the findings. Where it goes from this point will need to be tracked and evaluated.

Judy Henderson

The partnership between the Massey University researchers and the researcher-practitioners has been of immense value to me personally. Supporting learners is my area of research interest, so access to recent and developing literature on this topic, especially on the adaptation and integration approaches, has widened my perspective. I have been introduced to a collaborate style of research I had not previously experienced, while the cross-institutional information and discussions have given me valuable insights into how other institutions approach issues of student support. The experience of working with and being supported by internationally recognised researchers has given me more confidence to continue to build my own research profile. I chose not to employ a research assistant and have learnt a great deal through conducting all the interviews and focus groups, as well as analysing the information received through questionnaires.

For my institution, the impact of this research project is less tangible at this stage. The academic and administrative staff who participated in the project have all had the opportunity to engage with and validate our recent findings, which will be disseminated more widely through a presentation at an institution-wide Research Fair in early November. The students were pleased to be surveyed about their experiences in their first year and hope that their involvement in this project will ensure further discussion of the issues they raised. The final case study for this institution will be completed and presented in 2006.

Promotion of these guidelines will endorse those who already achieve a learner-centred approach in their teaching and ideally will encourage others to adapt their practice to improve their retention rates.

Jenny Leadbeater

The research process—being part of a group of researchers from around New Zealand, with the expert support and guidance from the Massey team—has been of immense value to me. The team's knowledge of all aspects of the research process has ensured the success of the project. I have appreciated the skilful management of the project. Timely emails were sent out, queries responded to, and support provided that encouraged me to remain part of the process when other work issues threatened to swamp me. I really value the opportunity to take the research further with an individual case study over the next year or two. The papers written by the Massey team provide a starting point and a model for my individual case study, and I feel more confident now about following through to a conference presentation myself.

There was such a positive response from the student groups I interviewed. They were completely interested in the whole research process, asked pertinent questions about the results expected from such a piece of research, and challenged me to ensure that their stories were fairly represented. The whole interview process was good fun, informative, a real learning experience for me—and for them, I think. They were delighted to be involved, and so appreciative of the interest in them. It was quite a humbling experience for me, actually.

Colleagues were so open with their comments and so encouraged that here was an avenue where conversations could happen and viewpoints be listened to. The focus groups were just great. Colleagues from different parts of the polytechnic came together to discuss educational issues dear

to all their hearts, and they loved it. They all commented that we should have more sessions like this, as they had gained so much from hearing their colleagues' ideas. The discussions have continued in the staffroom as other colleagues have asked questions about our focus group. As a staff developer I can see possibilities for follow-ups to the focus groups on a regular basis. Senior management were keen to hear about the feedback from the various groups, and my report to them was given credibility as it was part of a New Zealand-wide, Massey-led project. Thanks very much for the journey.

Sue Purnell

As a researcher-practitioner I was well supported in my efforts to gather data for the project. However, the decision to research the extramural student population of our institution meant that it was extremely hard to gather data or to engender any enthusiasm from academic staff or the student community. For example, 100 academic staff were asked to participate: I received responses from five. A second-year extramural cohort of students was approached (electronically) and asked to participate: three responded.

I am sure that the project has raised the research capability of the lead researchers. However, I am not planning to pursue a research career, so for me the benefits of the project were minimal.

I think the results of the project, once disseminated in the organisation, have the potential to provide academic staff with information that they can utilise to improve their teaching in the classroom. I do not think that any benefit will accrue to the extramural students from this particular project.

It did not help me, but I concede that my situation was unique. I was not able to give the project sufficient time, and left the institution before the final phase.

Linda Rowan and Bonnie Dewart

First, we would like to acknowledge that it was nice to be in a collaborative research setting. The meeting/greeting aspect of team interactions enabled the free flow of information between practitioners and researchers.

From our perspective, the partnership in this project worked extremely well. The first meeting of the research team and practitioners was helpful in clearly defining the process and getting it started. The goals and milestones were clear from the start and progress reports kept us informed of any variations. The rules and contractual nature of the partnership were followed.

The administration of the project was great. TLRI group emails and telephone conferences meant that everyone was kept in the loop. Feedback in terms of milestone reports, copies of presentations, and updates on data collection helped to keep the project alive.

The data and findings of this research are of great value to our institution. The 2002 institutional study provided a rich source of information on student retention/completion, and this study builds on that. The successful completion of the project has raised the profile of the research findings in the institute. The research method provided a rich source of information that is of use to both students and the institution.

One weakness of the project was the issue of privacy. We consider it would be helpful to name the different institutions and talk more openly about what was happening within them. Given the diverse nature of the institutions and their contributing populations, some means of identifying areas of the research that have worked well would have been helpful. With the agreement of partner institutions, such openness would allow for an acknowledgement of successful adaptations without discrediting those who had more awkward issues to deal with.

The nature of the research and the amount of data to be collected required the use of an independent research assistant, as the teacher-practitioner did not have sufficient time available. For us this worked well and the information gleaned in the process can be evaluated more readily at an institute

level. An offer to an institution to participate in research of this nature may be contingent on it finding people to do it.

The contribution of the project to building the capability of teachers to improve their teaching practice is ongoing. A presentation to our institution's staff development conference invoked a lot of interest. Teachers willingly provided feedback on the TLRI guidelines for teachers and institutes. A presentation to senior management staff is planned, and the research results will be provided to the institutional research committee as well. We also presented a paper to the Bridging Educators conference at the Manukau Institute of Technology in October. Our approach to the research was well received, and again interest in both the research and the outcomes was high.

Participating in the research helped us in focusing on a research topic and methodology; having the results analysed centrally was a real boon. We valued our experience as teacher-researchers with the help of the TLRI researchers.

At this stage, we would also appreciate some advice on the best avenues for publishing the paper we have produced. The nature of our presentations and publications is unlikely to overlap with those of the lead research team.

Stewart Wilson

Our institution had begun researching in the area of retention and success in 2000, so the project provided an excellent opportunity to extend our research activities into these issues and acquire our own data for local use. For example, we used the project to obtain feedback from Māori students via one of the focus groups. This confirmed for us the vital importance of our Te Whare Awhina for these and other students. The project also enabled us to contribute to an important national research project.

A key factor in the success of the project for us was the consultative team approach adopted by the project leaders (researchers). As a researcher-practitioner I felt I was part of a strong team, and that everyone's contributions were sought and valued. The researchers consulted freely on all aspects of the project, including methodology, questionnaire design, and research outputs, and signalled very strongly that feedback from the researcher-practitioners was valued.

At our institution the research activities were undertaken within the Academic Development Unit where the researcher-practitioner had a split teaching/academic advising role during most of the project. Research expertise grew as a result of the project, in particular in the area of qualitative research—both design and implementation. Other staff were interested in the project and some sought information on the methodology for their own research projects. A student even made an approach regarding some work he was doing for a research methods paper, and may undertake research in this area next year in another of his papers.

In addition to the researcher-practitioner, teachers were involved in the teacher questionnaire and the validation of the general guidelines. The former generated an encouraging response, not so much in terms of the number who responded, but in terms of the enthusiasm with which many responded. The validation was also interesting, in that it revealed a keen interest among many staff in improving student success. An internal research seminar where the research findings were presented also generated keen interest from those who attended.

The research findings confirmed much of what we knew and some of the things we were already doing to try and improve student outcomes. However, a surprising and significant finding for us was that as many as one in three of the students who responded to the questionnaire had considered at least partial withdrawal. We were not surprised that withdrawal is a problem, but—given that the sample comprised persisters who had re-enrolled for a second year—this indicated that even successful students experience moments of doubt. For many of us, the message from this was that our efforts to improve student success must operate on many fronts and include all students.

Finally, thanks to Linda, Nick, and Tom for inviting us to be part of this project.

5. Findings

In this section we highlight key findings from five different data-gathering activities used in this study. We begin by locating the research in relevant literature. We then discuss findings from the student survey (the cornerstone of this study) before presenting findings from the student interviews and focus groups. We then turn to findings from the teachers' questionnaire and the interviews with administrators. Lastly, we synthesise these key findings into guidelines for practice, which were validated by a sample group of teachers and administrators.

Literature foundations and theory building

Researchers have been interested in student retention, persistence, and achievement since the 1960s. A rich and voluminous research literature has developed. Major syntheses have been published, primarily in the USA (Astin, 1993, 1997; Pascarella & Terenzini, 1991, 2004; Tinto, 1975, 1988, 1993), but also in Australia (McInnis, Hartley, et al., 2000a). Yet, according to Yorke and Longden (2004), no unified grand theory has emerged:

Our position is that retention and student success are influenced by a complex set of considerations which are primarily psychological and sociological, but which are in some cases influenced by matters that might be located under other disciplinary banners such as economics. (p. 77)

We agree that theoretical approaches to early departure are diverse and eclectic. To make some sense of a confusing picture, we labeled two distinct, yet overlapping and complementary explanatory discourses: "integration" and "adaptation".

Vincent Tinto's longitudinal interactionist model of student departure is the major example of an integrationist discourse. It has achieved a dominance in retention theorising, called almost hegemonic by Braxton (2000). Tinto (1993) suggests that students who enrol in tertiary study leave their culture of origin and enter a different, academic, culture. Students who leave early may not have succeeded in integrating into this new culture. Institutions, therefore, must act to facilitate the transition by helping students to integrate, and thereby optimise their retention and success. Tinto's 1993 model of student departure has six progressive phases. Two focus on students' social and academic integration into their institution. Much student retention research is based on these two integrative constructs. Background studies for our survey tested various Tinto constructs (Braxton & Lien, 2000; Braxton, Vesper & Hossler, 1995; Cabrera, Castenada, Nora & Hengstler, 1992; Padilla, Trevino, Gonzalez & Trevino, 1997). Although many aspects have been validated by empirical research, results have been uneven. Braxton and Lien (2000), for example, tested Tinto's academic integration construct and found quite different levels of support for it in multi-institutional and single-institutional studies.

Tinto's theory and models are not without critics. These seem to fall into two broad groups - those who wish to revise and improve Tinto's theories (Braxton, 2000; Cabrera et al., 1992) and those who propose entirely new theoretical directions (Berger, 2001-2002; Kuh & Love, 2000; Rendon, Jalomo & Nora, 2000; Tierney, 2000). In our view, those revising Tinto's model retain his integrative intent. This results in an assimilation process that fits the student to the institution.

Those developing new theoretical directions modify integration to include adaptation, where institutions change to take account of students who do not easily integrate into the prevailing culture of an institution. In this emerging discourse, student departure is influenced by their perceptions of how well their cultural attributes are valued and accommodated, and how differences between their cultures of origin and immersion are bridged (Berger, 2001-2002; Cabrera, Nora, Terenzini, Pascarella & Hagedorn, 1999; Thomas, 2002; Walker, 2000). This adaptation discourse owes much to Bourdieu's (1973) theory of social reproduction. Bourdieu used the idea of "cultural capital" to

help explain social inequalities. Cultural capital (comprising the norms, values and practices of a society) is like economic capital, a resource that can be used. Those having ready access to the various sources of capital, including cultural capital, comprise the dominant class in a society. This class has the power to determine norms and practices, including the knowledge to be valued and taught. The collection of accepted norms and practices is “habitus”, which is reproduced in educational institutions. Students who (by virtue of their ethnicity, age, gender, socioeconomic status, for example) don’t share the prevailing habitus find themselves in unfamiliar and possibly alienating situations. From this, Berger (2000) theorises that such students may not succeed in institutions where their cultural capital is neither recognised nor valued, and leave early. Based on their own empirical work, Yorke and Longden (2004) agree that “the level of cultural capital is associated with retention and success ...” (p. 81).

In developing our own theoretical views for the TLRI project, we came to perceive integration and adaptation as complementary. In order to persist, students must feel that they belong to the social and academic habitus of the institution in which they study, and that their own cultural capital, no matter how diverse, is valued and accommodated within an adaptable habitus. Rather than segregating the integration and adaptation discourses, we now understand them as one, with integration perhaps as a subset of adaptation.

Up until recently, New Zealand literature on the subject of retention was sparse. Student departure and success is generally conceived within Tinto’s integrative models. Indeed, the literature sections and designs of most studies acknowledge Tinto’s work (Dewart, 2003; Grote, 2000; Kozel, 2002; Leys, 1999; Wilson, 2002). Trembath (2004) reports results that parallel those in our research synthesis. Two New Zealand projects have taken a slightly different theoretical approach. Purnell (2002) also acknowledges Tinto’s contribution, but explains her research in terms of Nicholson’s (1990) transition cycle. Bennett and Flett’s (2001) research into the role of Māori cultural identity in student success, however, is related to the adaptation discourse. Fraser (2004) reports an approach to retention issues taken by her institution (and increasingly by others) that focuses on ensuring that students have the necessary academic skills upon entry.

The student questionnaire

We report the research process and detailed results elsewhere (Zepke et al., 2005b; in press). The key findings are given below.

Survey findings confirm international retention data

The survey supports international findings that early withdrawal is an important issue in tertiary education (Braxton, 2000; Pascarella & Terenzini, 1991; Yorke, 1999). A considerable proportion of students in each institution considered full or partial withdrawal. Overall, 12 percent of the students surveyed had withdrawn from at least part of their studies and 33 percent had considered at least partial withdrawal. These findings mirror those of McInnis, James, et al. (2000) in Australia, who found that 18 percent of their first-year sample withdrew from at least one module and about one-third considered deferring their studies. Given that the students in our survey had actually returned to study, it is possible that the real attrition rates are even higher.

Non-institutional factors affect retention

An important finding from this survey was that the single most important factor in early withdrawal is a non-institutional one—“there was too much going on in my life”. Of those students thinking of full withdrawal, 49 percent considered this a very important or important reason, as did 42 percent of those who actually withdrew. In comparison, the next most important reason for those considering withdrawal was “course workload was too heavy” (32 percent). The picture for those who actually withdrew was a little more complex, as 44 percent also thought they had enrolled in the wrong course. A lot fewer (27 percent) rated “the course did not suit the way I learn” as their third factor. While the survey shows that retention issues cannot be sheeted home just to institutional factors,

further research needs to be done to clarify the non-institutional factors and then evaluate their importance in relation to institutional ones.

Institutions face some similar retention challenges

The survey identified some common factors across all of the institutions. Principal among these was “workload”. This featured among the top two reasons for students who considered full withdrawal; the top three for students who considered partial withdrawal; and the top four for students who actually withdrew. Confirmation of the importance of workload as a retention issue is provided from the data of students who considered withdrawal, but kept studying. In six institutions, “I found ways to manage my workload” was the second most important factor for continuing study. Three success factors for students who had not considered withdrawal were common across all institutions: “I was really determined to succeed”; “I was achieving my goals”; and “I felt I was in the right course”. Each of these factors was considered to be very important by at least 73 percent of respondents. Arguably, these success factors could be related to Tinto’s (1993) concept of academic and social integration. People who are confident that they are studying the right course, are achieving their goals, and are determined to succeed are likely to be academically integrated into their studies. Judging by this result, it is effective for institutions to provide sound academic advice on entry, good teaching, and affirming feedback through formative assessment. Most importantly, perhaps, institutions need to ensure that students have a manageable workload.

Institutions also face unique retention challenges

This survey supports Braxton and Lien’s (2000) and McInnis, James, et al.’s (2000) concern that individual institutions could face unique retention challenges—ones that are obscured in multi-institutional studies. In our data, one institution’s results consistently stood out as being different. For example, 48 percent of the respondents from this institution considered “wrong course” an important or very important reason for considering partial withdrawal, 41 percent considered their course “too difficult”, and a third considered the “quality of teaching” as an important or very important reason for considering withdrawal. This compares with 24 percent for “wrong course” across the seven institutions; 23 percent for “course too difficult”, and 20 percent for “teaching quality”. Another institution had a much greater proportion of those considering partial or full withdrawal citing “problems with administrative systems” than the average—suggesting that decision makers in that institution look critically at their support structures. In a third institution, only 14 percent considered that “my teachers supported me” and “people were flexible” to be important in their decisions to stay. This compares with other institutions in which as many as 48 percent rated “teacher support” and 36 percent “flexibility” as important factors. While these results may be explained in a number of ways, the point is that individual institutions need to investigate their own retention issues and find individual ways of addressing them.

There is some support for ideas in the “adaptation” discourse

The data suggest that institutions can still do much more to meet the needs of diverse students. Of those who considered full withdrawal from their studies, around one-fifth gave inadequate teaching, a lack of recognition of their learning needs, and an absence of a sense of belonging as important or major reasons for thinking of withdrawal. When responses to all 11 statements on the questionnaire’s subscales were ranked in order of importance, these reasons all featured in the top half of those factors that give rise to thoughts of withdrawal.

Those who did withdraw ranked two other factors, “did not suit the way I learn” and “felt I did not belong” in the top half. The impression that institutions did not really value diversity was enhanced by the data from students who had never considered withdrawal. These students placed all items that described institutional norms and practices as supportive of their diversity in the bottom half of the items they thought were important or instrumental in helping them to stay. Again, some institutions faced greater challenges than others. In one institution, for example, “teaching quality”, “suits the way I learn”, and “belonging” were rated highly, while another was rated poorly on these variables.

Being learner-centred assists retention

In their study of UK institutions that bettered government-set retention benchmarks for students from lower socioeconomic groups, Yorke and Thomas (2003) found that a learner-focused approach was probably a reason for exceeding the benchmarks. This involved an emphasis on teaching quality and staff development, flexible approaches to learner differences, and processes and systems that enabled students to feel at home. The data from the student survey support these findings. They suggest that teaching quality and support, flexibility in accommodating different learning approaches and needs, and institutions' ability to create a climate in which students felt comfortable are factors in retention. For example, respondents who never considered withdrawal generally felt teachers were supportive when students needed help, people were flexible, they had a sense of belonging and awareness of how the system worked, and a general feeling that people were helpful. Conversely, students in one institution with high attrition rates were less enthusiastic about teacher support, flexibility, feelings of belonging, and understanding of the system than students in other institutions. Together, the data support the view that adapting to student diversity and being learner-centred may well increase retention and completion rates in these institutions.

Exploring relationships in student interviews and focus groups

Findings from student interviews and focus groups are reported in Leach, Zepke & Prebble (2005). Our analysis of the student survey data indicated possible reasons for early departure. We explored these findings more deeply in interviews and focus groups, focusing on four indicators from the survey data—the importance and nature of belonging, the role of student support services, the impact of non-institutional issues and support, and students' expectations of teachers. Our analysis of this data revealed four relationships that seemed to have a major influence on whether students stayed or left. They concerned relationships between individual students and:

- front-line administrative staff
- staff working in student support services such as libraries, study skills centres, counselling, health services, and hospitality areas;
- their teachers, both in the classroom as facilitators of formal learning and outside it, in mentoring and advisory capacities by fostering learning with students in communities of practice.
- their fellow students; and
- their significant others outside the institution (e.g., family members, friends, and employers).

The effect on retention of positive and negative relationships with parents, partners, and children was confirmed. While it is not an important new insight into retention, we accept that relationships are a key factor in explaining the early departure puzzle. This is because the adult education literature is supportive of the notion that good relationships and collaborative learning climates are important in learning (Otero, 2001; Palmer, 1993; Rossiter, 1999). Nugent (2003) puts it like this: “my approach to teaching is based on the idea that good communication and good relationships are essential to good teaching” (p. 83). The notion of relationships as a retention factor is particularly pertinent in Aotearoa New Zealand, with its Māori population. The data discovered here agree that the answer to a rhetorical question often asked by Māori—“what is the most important thing in the world?”—should be answered with “he tangata, he tangata, he tangata”—it is people, it is people, it is people.

We summarised our findings from the interviews and focus groups as the following suggestions for institutions and teachers:

1. *Create an institutional culture that is learner centred.* Teaching and student support are servants to learning, so should meet the learning needs of diverse students. This requires flexibility in teaching, assessment, workloads, and administrative systems.
2. *Focus on fostering positive relationships between students and significant others in the institution.* Relationships emerge as a key factor in determining success or failure; retention or

early withdrawal. Positive relationships between students and their peers, institutional support staff and teachers, do have major effects.

3. *Nurture institutional support structures and services.* Even though support services are often under-used, for students at risk of leaving early they can be vital. The functions of various support services need to be understood by all staff within the institution, who must consider themselves as reference points to appropriate services.
4. *Operate an early-warning system.* If factors outside the institution's control are frequently responsible for students leaving early, then an early warning of imminent departure will minimise actual departure. Systematic reporting of absences, missed assignments, and sudden deterioration of grades to designated people within the institution are examples of early warning processes.

Our findings support the idea that institutions and teachers can influence retention. Student voices consistently suggested that relationship building is an important factor in addressing early departure. The continuing challenge is to find ways to meet the multiple relationship needs of diverse students, enabling them to persist and complete their studies.

The teachers' questionnaire

Findings from this data-gathering instrument were reported in Zepke et al. (2005a). The teachers surveyed all had a major role in teaching first enrolment students. The survey instrument was an open-ended questionnaire requiring mainly qualitative responses. We wanted to understand the general disposition of our respondents to the main principles of the adaptation discourse. We looked for data that showed whether respondents were aware of diversity in their student body, what they meant by it, what they were doing about it, and what feelings it engendered. We also wanted to capture their views on cultural capital and how they were working with it. Teachers' responses varied. Analysis revealed a complex landscape of opinions and practices. However, we found that most recognised the diversity in their classrooms. Many welcomed it and were prepared to adapt their teaching to value diverse cultural capital. A minority, however, reject the notion that they should change their practice to accommodate diversity.

Data from the teachers' survey enabled us to make suggestions on how institutions and teachers might improve retention using an adaptation approach. While the data show considerable commitment to adaptation from the teachers in our sample, we are aware of observations from some participants:

It is also important to recognise that within each culture, there is individual diversity. To fail to acknowledge that diversity is to 'stereotype'. Therefore it is important to not make assumptions about other people's culture based on their ethnicity or nationality. (E19:596)

We offer the following suggestions, not as universal findings, but as strategies institutions and teachers might consider for their own contexts.

Suggestions for institutions

1. Cultivate an institutional culture that welcomes and values students from diverse backgrounds.
2. Adapt institutional habitus to bridge students from their culture of origin into the academic culture.
3. Offer activities that will help students to create social networks.
4. Provide necessary facilities and resources to support high-quality learning and teaching.
5. Restrict class and tutorial group sizes, so teachers and tutors can establish rapport with each student.
6. Provide professional development activities to help teachers work effectively with diversity.
7. Implement workload policies that enable teachers to cater for students' diverse learning needs.

Suggestions for teachers

1. Be open to, welcome, and establish rapport with students with diverse cultural capital.
2. Help students to establish social and academic networks with others in the class and the institution.
3. Provide pastoral care for each student according to his or her needs.
4. Monitor students' academic and social integration and intervene early if necessary.
5. Relate content and examples to the students in the class.
6. Use a variety of teaching methods appropriate to the students.
7. Use assessment practices appropriate for students from diverse backgrounds.
8. Enhance personal learning by attending relevant professional development activities.
9. Refer students to student support services when appropriate.

Administrators' interviews

In this part of the project, we interviewed administrative staff—the people who do not teach, but who manage, facilitate, and/or assist the student experience from outside the classroom. We sampled people who held well-informed views on student retention in participating institutions. These included academic programme managers, academic registrars, departmental or unit secretaries, finance officers, specialist Māori student support people, student advisers, librarians, learning support people, and a student advocate. The research was reported in Prebble et al. (2004).

When they spoke of student retention, participants tended to do so on the basis of their own administrative experience and their own responsibilities. They made very few statements about the role of teaching in supporting student retention. All but a few respondents had positive views about their own contribution to keeping students.

Most importantly, these respondents had a strong client-service orientation. They wanted to see active monitoring of service performance. They advocated the constant improvement of quality systems, particularly in ensuring effective student support services and pastoral care. Administrators emphasised the importance of students having adequate resources and facilities and of institutions proactively monitoring individual student performance (including follow-up action when support needs were identified).

Otherwise, administrators were most interested in achieving the integration of students into their institution. They had firm views on the importance of ensuring that admission and enrolment processes are clear, accessible, user friendly, and as simple as possible. Most thought good induction assists students to settle in to their studies. This seems to be a well established feature of institutional life, and most institutions seem to have systematic induction programmes for new students. Induction processes were seen as particularly helpful for Māori and minority students. Participants listed numerous support services as necessary in a healthy institutional community, including medical services and counselling, learning support and mentoring, advocacy, disabilities support, library and information technology, and commercial, informational, cultural, religious, sporting, recreational, international, and ethnic services. They believed their particular services made a positive difference to retention. Mirroring the international literature, a few wondered how many students knew of the existence of some of these services.

A number of interviewees mentioned the importance of acknowledging and welcoming the cultural capital that students bring with them. This demonstrated their awareness of the adaptation discourse. In particular, participants from institutions with a large number of Māori students stressed the importance of acknowledging the culture of the people they were working with. Some made this acknowledgement by accommodation—a number of interviewees mentioned particular systems they

had introduced to accommodate different cultures—but there were also comments that reflected a failure of institutions to provide adequate recognition of cultural needs.

Guidelines for practice

In this TLRI project we chose to synthesise the findings from the five data-gathering instruments employed in our 360-degree study into a set of practical guidelines useful to teachers and their institutions. But guidelines can take various forms—detailed action statements, more general principles, or somewhere in between these. We chose to present a few general guidelines rather than a long list of specific ones, as we decided that general guidelines were most amenable to acceptance and shaping by individual institutions. Such guidelines would better support the widely held opinion in the field that retention issues are best addressed at the level of the individual institution. Moreover, as we had deliberately eschewed a national sample, our research could not support a raft of detailed national guidelines.

For each of the nine general guidelines below, we state the guideline, briefly explain it, and then indicate the data set(s) from which it emerged. The guidelines were drafted from the data and taken to a sample of teachers and administrators for validation. The draft guidelines were widely supported as “wonderful principles for practice” (A:1); “a very good distillation of what works in tertiary education” (A:8); “well thought through and relevant” (E:3) and “common sense”—if somewhat “idealistic”—and “motherhood and apple pie” (D:2). Indeed, the overall tenor of the responses can be summarised as: “In general, I believe that implementation of all these guidelines could be very powerful in improving student success” (D:12). However, a few saw them as not realistic but “all fluff and no substance” (F:4), or “fuzzy, feel good principles” (G:1). Others thought they didn’t go far enough, still “assume[ing] learners will adapt to the institution” (B:7). As a result of the feedback, we made some changes in order to create this (still idealistic) final version.

1. *Foster an institutional culture where good teaching is valued*

The data show that “good teaching” is a key factor in student retention. Institutions need to value good teaching and good teachers. Teachers need to know that that good teaching is important in the institution, and that they are valued and recognised for their contribution. For example, institutions that value good teaching provide professional development activities to help teachers work effectively with diversity, implement workload policies that enable teachers to cater for students’ diverse learning needs, and reward good teaching as part of promotion and salary reviews (teacher survey; student survey, interviews and focus groups).

2. *Create an institutional culture that is learner centred*

A learner-centred culture welcomes students. It respects and adapts to diverse values, attributes, and knowledge. It has flexible administrative systems, teaching, and assessment and helps students establish social and academic networks with others in their class and the institution. It values students’ existing knowledge and experience and includes content that is relevant to students (administrator interviews; teacher survey, student survey, interviews and focus groups).

3. *Foster positive relationships between students and staff*

The data revealed that relationship building is a key factor in determining success or failure; retention or early withdrawal. Positive, professional relationships between students, their peers, institutional support staff, and teachers do have major effects. When relationships are strong and staff are perceived as approachable and interested, students will discuss issues, thus preventing their early withdrawal. The development of positive relationships also supports student academic and social integration (teacher survey; student interviews and focus groups).

4. *Cultivate high-quality teaching*

Good teaching is a very important factor in retaining students. Teacher data consistently described their efforts to teach well. “Teaching well” included developing good relationships

with students, providing pastoral care, using a variety of appropriate teaching methods, making content relevant and relating it to “real” life’, setting a manageable workload, using a variety of assessment methods, giving prompt and full feedback, being available inside and outside class, and attending relevant professional development activities (teacher survey; student survey, interviews and focus groups).

5. *Ensure sound academic advice is available*

Our student survey revealed that about one-third of students enrol in the wrong course. Prospective students want to understand the nature of courses, the workload involved, and teaching methods used before they enrol. If necessary, students should be counselled out of taking a particular course. The drive for “bums on seats” does not lead to good retention (student survey, interviews and focus groups; administrator interviews).

6. *Provide and maintain facilities, resources and student (client) services necessary to support quality learning and teaching*

Appropriate facilities and resources promote academic achievement. Even though support services are often underused, for students at risk of leaving early they are often vital. The function of various support services needs to be understood by all staff within the institution, who must consider themselves as reference points to appropriate services. It is also important to offer activities that will help students to create social networks (administrator interviews; teacher survey; student survey, interviews and focus groups).

7. *Restrict class and tutorial group size so teachers and tutors can establish rapport with each student*

Students and teachers emphasised the importance of class size as a factor influencing their ability to establish academic relationships. It also affects students’ willingness to participate in class and to ask questions when they don’t understand. Large classes negatively affect student learning and retention. Every student should have the opportunity to establish good rapport with at least one teacher or tutor. This is particularly important in the first year (teacher survey; student interviews and focus groups).

8. *Monitor student performance and operate an early warning system*

As factors outside the institution’s control are frequently responsible for students leaving early, an early warning of imminent departure will minimise actual departure. Systematic reporting of absences, missed assignments, and sudden deterioration of grades to designated people within the institution are examples of early warning processes and are integral to good pastoral care (administrator interviews; teacher survey; student survey).

9. *Be wary of generalised guidelines; research your own institution*

While it is possible to identify general guidelines to help institutions and teachers improve student retention, it is also clear from the data that individual institutions face specific retention issues. It is, therefore, essential that each institution identifies and acts on its unique retention issues in addition to using general guidelines to improving retention (student survey; teacher survey; administrator interviews).

6. Limitations of the project

Some of the limitations have already been discussed in Section 3 under “Reflections on the research design and process”.

The greatest limitation for the project stemmed from the decision to research retention challenges faced by our partner institutions in seven case studies rather than working with a generalisable national representative sample. This limitation is overcome by the richness of the case study data, which provides a good basis for decision making in individual institutions. Another limitation is the limited data about specific sub-populations generated in the case studies. This restricted even intra-institutional comparisons between sub-populations. It should also be noted that our student sample comprised students who returned to their studies even though they thought about withdrawing or actually withdrew for a time. This means that the responses of students who have not returned at all may be different. Offsetting these limitations are the very rich data obtained from the other instruments. These enable us to offer our guidelines for practice with some confidence, particularly as our findings are in line with international literature.

However, further research into ways to retain and help Māori and Pasifika students to improve their outcomes is desirable. Further research is also needed to investigate the reasons why international students do not complete their studies. A limitation beyond the control of the project is how widely the research results will inform practice. The take-up so far has been promising, but more research with other institutions is still needed. Lastly, our reflections do identify weaknesses in the questionnaire design. Because we covered extra-institutional factors in early student departure with a single blanket question only, further research is needed to examine this important area in more detail.

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