Enhancing the Effectiveness of Tertiary Teaching and Learning through Assessment

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We would also like to acknowledge the contribution of Dr Tom Cockburn who was joint project leader with Pat Reid for the earlier stages of the project.

Table of Contents

Abstract

Assessment has been identified internationally as an area in which tertiary educators need further professional development. There has also been a recent shift to 'assessment for learning' rather than 'assessment of learning' and recognition that utilising the former is one of the most effective interventions we can make to improve teaching and learning.

This study documents innovative and effective assessment strategies of 39 tertiary teachers from three different New Zealand tertiary education sectors. The cases were each gathered in one-to-two hour audio taped interviews and transcriptions were used to develop narratives and 'in brief' versions for each case. The project also focused on disseminating the assessment strategies. This included reviewing the literature of dissemination practices and developing both print-based and website resources. Key personnel from the participating tertiary organisations provided feedback relating to the suitability of the resources.

While common themes emerged from the case studies, such as the use of authentic assessment tasks and formative feedback, there was a diversity of views, preferences, and needs regarding ways in which the materials should best be used for the professional development of teachers. The researchers concluded that while the materials provide a rich resource of assessment practices used by tertiary teachers, they could not be presented in a single medium to meet the needs of all tertiary teachers.

It was recommended that further research be conducted into effective methods of dissemination and subsequent development of the research materials be undertaken. It was also recommended that further research be undertaken to build on the research materials from the current study, including a focus on student perceptions of how such assessment strategies enhance their learning.

Keywords

Assessment for learning

Enhancing teaching and learning

Reflective innovation

Practitioner case studies

Dissemination practices

Teaching Matters Forum

Wintec

Te Reo Māori

Executive summary

INTRODUCTION

The New Zealand Ministry of Education contracted the Waikato Institute of Technology (Wintec) to complete this project for the Teaching Matters Forum, whose activities focus on enhancing the effectiveness of teaching and learning within the New Zealand tertiary sector. Ako Aotearoa, the national centre for tertiary teaching excellence, has agreed to host a website with the results of this project.

This project focuses on one of three Teaching Matters Forum themes: 'Practices that teachers use to support effective teaching and learning, a teacher-focused project'. Rather than trying to address a broad range of teaching practices, the project provides in-depth information on best practice in one area only, that of enhancing teaching and learning through assessment.

The specific objectives of the project were (a) to identify and document innovative assessment strategies; (b) to develop, implement and document good practices aimed at disseminating the results of these strategies; and (c) to provide recommendations on how to further assist New Zealand tertiary teachers to incorporate innovative assessment strategies into their teaching.

BACKGROUND

Over the last decade there has been a move internationally and in New Zealand to improve quality in the secondary and tertiary education sectors through a focus on learning outcomes and their assessment. A growing body of research focuses on the key features of assessment that promote learning: for example, Angelo & Cross (1993), Biggs (2003), Black & Wiliam (1998), Carless (2002), Crooks (1988), Elton (2004), Gibbs (1995), Gibbs & Simpson (2003), Knight (2001), Loacker (2003), NZCER (2006), Sadler (1989, 1998), and Zepke (2003).

Research from the Learning Oriented Assessment Project suggests that:
- The learning of students is very much driven by the assessments they undertake
- New thinking in teaching and learning shows that the potential learning gains of formative assessment are highly significant

- Good assessment practices create positive wash back, i.e. the desired learning outcomes
- Assessment has been identified internationally as an area in which tertiary educators need further professional development (The Hong Kong Institute of Education and LOAP, 2005).

In New Zealand, the focus on learning outcomes and assessment can be linked to the National Qualifications Framework (NQF), which led to the shift to standards based assessment and a much greater focus within programmes on assessment practices. More recently, attention has turned towards 'assessment *for* learning' rather than 'assessment *of* learning' and recognition that utilising the former is one of the most effective interventions that can be made to improve teaching and learning. This attention is mirrored in the Ministry of Education's policy documents and their recent focus on professional development. Notwithstanding this interest at policy level, there has been surprisingly little New Zealand research on assessment practice in the tertiary education sector.

METHOD

This project utilises tertiary teachers' personal stories regarding teaching and learning as well as their views on how the results of this project should be disseminated. Case study methodology was chosen because teachers find 'living examples of implementation' useful in changing their practice (Black and Wiliam, 1998, p.10).

The project also investigates effective ways of building professional practices and a culture that supports effective teaching and learning in tertiary education, as well as effective ways of sharing good practice from one teacher to another. Viskovic (2004) identified some of the key elements in the New Zealand setting that contribute to professional practice and the sharing and building of a tertiary teaching community, including the importance of supporting informal workplace learning. The work of Wenger et al. (2002) also contributes to our understanding of the nature of communities of practice and the ways in which they develop and function.

The project comprised four phases of research:
1. Consultation, a literature review, ethics approval and a pilot study were completed.

2. Thirty case studies of innovative assessment practices were developed from three different tertiary sectors – University, Institute of Technology and Polytechnic (ITP) and Private Training Establishment (PTE). An additional group of nine tertiary teachers who identified as Māori or Pasifika from the ITP sector were interviewed and eight of these case studies were made available. A Pakeha teacher who taught a large number of Māori and Pasifika students was also interviewed as part of the Māori and Pasifika group of cases. The data were collated and analysed, and a literature review for the third phase was completed.

3. A strategy for professional development of tertiary teachers was developed using the research resources, and workshops were held to discuss dissemination approaches.

4. A final report was prepared and submitted to the Ministry of Education.

FINDINGS AND DISCUSSION

The case studies

The case studies were drawn from a wide range of disciplines, qualifications and NQF levels. The commonalities in the case study assessment strategies included the use of authentic assessment tasks, close integration with teaching and learning and providing learners with opportunities for formative feedback. Strengths and limitations of the strategies were noted.

Notable assessment themes emerging from the case studies included alignment with teaching and learning, student-centredness, workplace relevance, integration of theory and practice, student engagement with learning, self directed learning, formative assessment, promotion of excellence, and recognition of student diversity.

Changes, or trends, in assessment practices were evident. For example, there was a shift away from traditional assessment in the university sector. The ITP case studies reflected a trend towards a more integrated approach to assessment, teaching and learning. The PTE sector case studies were mainly related to strategies used to overcome the perceived negative impact of unit standard assessment on students' learning, such as the measurement of surface learning, over-assessment and assessment of discrete points rather than integrated assessment.

Few described their assessment strategies with reference to general principles of assessment or recent research.

Innovative assessments in the case studies are 'personalised versions of public codified knowledge' (Eraut, 2003). The tertiary teachers present personal accounts of what they recognise as innovations within the context of their daily practice.

Although the teachers who identified as Māori or Pasifika carried out their assessment practices within a mainstream institutional framework, all were conscious of their own cultural backgrounds and accepted the role of 'whole-of-person' teachers for their students as well as specific subject specialists. They identified five characteristics that may be regarded as points of difference to mainstream classes: the need to rescue Māori and Pasifika students from their previous negative experiences in secondary school (kaitiaki me aroha); an emphasis on educating 'the whole person' (kia tū tangata); mixing personal and professional relationships (whanaungatanga / manaakitanga); teacher and learner role reversals (tuakana / teina); and the development of self-respect and responsibility in each student (tino rangatiratanga).

While the two Pasifika teachers made less direct reference to these five cultural values, they were still very familiar with these traditional concepts. Both teachers had considerable marae experience and some fluency in the Māori language as did the 'Pakeha' teacher who was interviewed as part of this group of cases. Whether kaupapa Māori or kaupapa Pasifika this group of teachers saw no conflict of culture or interest and felt that the inclusion of traditional assessment methodologies (such as the use of either individual or group assessments, the inclusion of family or community in assessments, and the use of Marae based assessment) would benefit all students, not just Māori or Pasifika students.

Dissemination

The dissemination literature review found that the practice of diffusion of best practices and innovation needs to be well planned and ongoing to ensure the uptake is systematic and appropriate. Dissemination plans should provide a flexible, accessible and varied array of

medium and messages to attract and accommodate diverse requirements. Both the assessment and dissemination literature review indicate that tertiary teachers prefer to learn from each other in either informal or workshop settings.

During the dissemination workshops, the research participants shared their responses to the print-based materials and website developed by the research team. Suggestions for future development of the website for tertiary teachers were made in relation to the content, presentation, access and user focus. Three of the organisations involved in the project are currently planning professional development activities to begin the process of disseminating the research materials locally. While Māori and Pasifika teachers were present at the workshops, none of the Māori and Pasifika case study interviewees attended and therefore their views regarding dissemination of the print-based materials and website are not represented in this study.

CONCLUSIONS

The case studies and research materials provide a richness of information and valuable insights into the assessment views and practices of New Zealand tertiary teachers. The research materials are important learning resources that should be made available to the tertiary sector.

Developing resources to suit the diverse needs and preferences of tertiary teachers across a broad range of contexts is a complex task and outside the scope of the current project. The draft resources, together with the feedback from workshop participants, provide a valuable foundation from which such future development can proceed.

Recommendations

It is recommended that:

- Ako Aotearoa undertakes to a) maintain the current website of research materials developed as part of this project and b) to add reports from organisations that make use of the materials as part of their professional development activities

- further research be undertaken to investigate effective methods of dissemination of assessment practices for tertiary teachers who have a diverse range of learning styles and professional development needs

- future development of the research materials, informed by the research above, be undertaken by experienced web-based resource designers to ensure that the materials can be accessed by practitioners

- further research be undertaken to build on the research materials from the current study, including a focus on student perceptions of how such assessment strategies enhance their learning.

Introduction

The New Zealand Ministry of Education contracted the Waikato Institute of Technology (Wintec) to complete this project for the Teaching Matters Forum whose activities focus on enhancing the effectiveness of teaching and learning within the New Zealand tertiary sector. As stated on the Forum's website, this work includes commissioning projects 'to improve our knowledge about how effective teaching and learning in tertiary education can be enhanced. These projects will also inform the initial work of the national centre for tertiary teaching excellence' (Ministry of Education, no date). Ako Aotearoa, the national centre for tertiary teaching excellence, has agreed to host a website with the results of this project.

The Teaching Matters Forum identified three themes concerning ways in which effective teaching and learning in tertiary education in New Zealand can be enhanced. This project focuses on one of these themes: 'Practices that teachers use to support effective teaching and learning, a teacher-focused project'. The project is also aligned with the *Tertiary Education Strategy 2002-07,* particularly *Strategy One Objective 5*: 'A stronger system focus on teaching capability and learning environments, to meet diverse learner needs' (Ministry of Education, May 2002, p.25). In addition, it supports *The Tertiary Education Priorities 2005-07*, *1.3 Promoting Effective Teaching,* which suggests that the effectiveness of tertiary teaching can be improved by establishing academic work groups or communities of practice. Such communities of practice provide a forum where educators can receive 'feedback, advice and support from teaching colleagues and academic development consultants' and performance can also be enhanced by 'effectively utilising feedback received from students' assessments' (Ministry of Education, no date, p.10).

A central principle of the current study is that it is informed by and represents the participating New Zealand tertiary teachers' views and experiences of teaching and learning. In a 'Review of future-focused research on teaching and learning' (Codd et al., 2002), it was found that while many policy frameworks and research projects seek to change pedagogical practice in order to improve learning, the changes must be shaped and owned by teachers for significant change to

occur. This project focuses on tertiary teachers' personal stories regarding teaching and learning as well as their views of how the results of this project should be disseminated.

Key dimensions of effective teaching and learning practices in New Zealand are investigated by identifying and documenting practices that New Zealand tertiary teachers use to support effective teaching and learning. Rather than trying to address a broad range of teaching practices, the project provides in-depth information on best practice in one area only, that of enhancing teaching and learning through assessment. It does this by producing case studies of innovative and effective assessment practices employed across the tertiary sector in a number of New Zealand tertiary education organizations (TEOs).

Over the last decade, there has been a move internationally and in New Zealand, as witnessed by the development of the National Qualifications Framework (NQF), to improve quality in the secondary and tertiary education sectors through a focus on learning outcomes and their assessment. Arguably, the biggest impact of the NQF in employment-related education has been the shift to standards based assessment and a much greater focus within programmes on assessment practices. For many teachers, incorporating and assessing unit standards became the dominant factor in course design and delivery. Practices were shaped by the need to provide information about what learners know and can do that would be credible to employers and funding providers as well as to learners. This created a tension for teachers who are, as noted by Marr et al., balancing 'the needs of students against the requirements of institutions and funding bodies who might be seeking proof of learner progress in formats that are not so useful for ongoing learning' (Marr, Helme & Tout, 2003).

More recently however, there has been a shift to the view that we should give more attention to 'assessment *for* learning' rather than 'assessment *of* learning' and that utilising the former is one of the most effective interventions we can make to improve teaching and learning. As explained by Gibbs & Simpson (2003), 'There is more leverage to improve teaching though changing aspects of assessment than there is in changing anything else and, at the same time, teachers know less about how students respond to assessment than anything else' (p. 22).

There is a growing body of research that focuses on the key features of assessment that promote learning: for example, Angelo & Cross (1993), Biggs (2003), Black & Wiliam (1998), Carless (2002), Crooks (1988), Elton (2004), Gibbs (1995), Gibbs & Simpson (2003), Knight (2001), Loacker (2003), Sadler (1989, 1998), and Zepke (2003). The Learning Oriented Assessment Project (LOAP) suggests that:

- The learning of students is very much driven by the assessments they undertake
- New thinking in teaching and learning shows that the potential learning gains of formative assessment are highly significant
- Good assessment practices create positive wash back, i.e. the desired learning outcomes
- Assessment has been identified internationally as an area in which tertiary educators need further professional development (The Hong Kong Institute of Education and LOAP, 2005).

This trend towards focusing on assessment for learning is also evident in New Zealand in both the tertiary and the primary/secondary education sectors. For example, assessment is specifically included in the *Tertiary Education Priorities 2005-07*, section 1.3 'Promoting Effective Teaching', which states: ''A number of aspects in addition to subject area knowledge, contribute to effective teaching: we know that good tertiary educators … use effective assessment practices and provide students with comprehensive feedback' (Ministry of Education, no date, p. 10).

The Ministry of Education's recent focus on professional development in *Assess to Learn* (AtoL) places value on formative assessment, which is descriptive in nature: 'Fundamental to AtoL is formative assessment – constructive comment from teachers which enables students to improve their learning and educational outcomes by identifying specifically what they need to do more or less of' (Feltham, 2004, p.1).

Notwithstanding this interest in assessment at the policy level, there has been surprisingly little New Zealand research on assessment practices in the tertiary education sector. An important piece of research in the tertiary sector was conducted by NZCER, Assessment for Foundation Learning, regarding the importance of purposeful assessment in adult literacy, numeracy and language courses (NZCER 2006). It examined assessment in tertiary education and described six

broad principles of good assessment practice in foundation learning settings. This research investigated how New Zealand Adult literacy, numeracy and language tutors viewed and carried out assessment and compared this with national and international findings about effective assessment practice.

A three-year project entitled 'Valid and practical tertiary assessment of learning outcomes' is currently being funded by NZCER through the Teaching and Learning Research Initiative. This project has a number of similar objectives to our project in that it expects to report on current tertiary assessment practices and academic staff attitudes towards them. The project team includes staff from four Tertiary Education Organisations (TEOs): Victoria University of Wellington, Massey University, Manukau Institute of Technology and Te Whare Wānangao Awanuiarangi. The findings will be disseminated through a staff development training package, a national symposium on best practices in tertiary assessment and a model policy and best practice guidelines for the tertiary assessment of student learning outcomes, designed specifically for New Zealand TEOs and their diverse student population.

 In 2005, researchers and educators from the UK, US, Canada, Hong Kong, China, Malaysia, Singapore, Taiwan, United Arab Emirates, the Netherlands, Switzerland, Australia and New Zealand participated in the first International Conference on Enhancing Teaching and Learning through Assessment (Hong Kong Polytechnic University, 13-15 June 2005). Conference streams focused on issues such as: assessment in the workplace, authentic assessment, peer and self-assessment, the impact of assessment on teaching and learning, and online assessment. This conference was initiated by the Hong Kong Polytechnic University and was funded by the University Grants Committee of Hong Kong. The conference arose from an educational project aiming to 'enhance the quality of teaching and learning through designing and implementing effective assessment practices and the effective use of assessment results' (The Hong Kong Institute of Education and LOAP, 2005).

A number of the participants at the conference were members of the Learning Oriented Assessment Project (LOAP), based at the Hong Kong Institute of Education but involving inter-institutional collaboration among several Hong Kong tertiary institutions. Both of these three-

year projects used case study research to develop and trial innovative learning-oriented assessment practices and disseminate and promote effective assessment practices. Two members of our project team presented a paper at this conference: 'Juxtaposing formative and summative assessments in ways that make sense to learning: A New Zealand experience' (Musgrave & Matheson, 2005). Learning from this conference suggested that undertaking a project that investigated innovative and effective assessment practices in the New Zealand tertiary education sector would be valuable.

Case study methodology was chosen because teachers find 'living examples of implementation' useful in changing their practice:

> Teachers will not take up ideas that sound attractive, no matter how extensive the research base, if the ideas are presented as general principles that leave the task of translating them into everyday practice entirely up to the teachers… What teachers need is a variety of living examples of implementation, as practiced by teachers… (Black & Wiliam, 1998, p.10).

The project also investigates effective ways of building professional practices and a culture that supports effective teaching and learning in tertiary education, as well as effective ways of sharing good practice from one teacher to another. Viskovic (2004) identified some of the key elements in the New Zealand setting that contribute to professional practice and the sharing and building of a tertiary teaching community, including the importance of supporting informal workplace learning. The work of Wenger et al. (2002) also contributes to our understanding of the nature of communities of practice and the ways in which they develop and function.

The specific objectives of the project were (a) to identify and document innovative assessment strategies; (b) to develop, implement and document good practices aimed at disseminating the results of these strategies; and (c) to provide recommendations on how to further assist New Zealand tertiary teachers to incorporate innovative assessment strategies into their teaching.

Methods

The project comprised four phases, each of which culminated in a milestone report that was sent to the Ministry of Education.

PHASE ONE

Four main activities were completed in the first phase:

- Consultation was carried out with the Ministry of Education regarding specific aspects of the project.
- A brief review of assessment literature was conducted to contextualise the study (Appendix A).
- Ethics approval was gained (Appendix B).
- A pilot study was carried out with two Wintec academic staff members. This involved developing an interview schedule and conducting two alternative interview approaches, leading to a refinement of the methodology in the next phase of the project.

PHASE TWO

Thirty-nine case studies of innovative assessment practices were developed and the data contained within them were collated and analysed.

- Four types of Tertiary Education Organisation (TEO) were invited to take part in the project: The University of Waikato, Wintec, a range of PTEs, and Te Wananga o Aotearoa. The first three organisations agreed to take part while Te Wananga o Aotearoa declined.

- In order to achieve the Ministry's criterion of addressing 'diverse students' needs', a group of academic staff members was selected on the basis of ethnicity rather than organisation type. Nine tertiary teachers who identified as Māori or Pasifika from the ITP sector were interviewed and eight of these case studies were made available. An additional Pakeha

teacher who taught a large number of Māori and Pasifika students was also interviewed as part of the Māori and Pasifika group of cases.

- The teachers from each of the groups outlined above were identified as having an interest in employing innovative and effective assessment practices to improve the quality of student learning. As a group the participants (Appendices C and D) meet the following criteria:
  - They are recognised within their institution as employing innovative assessment strategies (for example, they may be using such strategies as online assessment, workplace assessment, peer and group assessment, unit standard assessment, portfolio assessment, etc.).
  - They teach in a range of disciplines and faculties (including trades, professions and general qualifications).
  - They include staff teaching at a range of NQF levels (certificate, undergraduate degrees and postgraduate degrees).
  - They include staff members who teach a diverse range of students.
  - Ten of the forty staff members identify themselves as Maori or Pasifika (eight were from the Māori and Pasifika interviewee group; one was from the ITP group and one was from the PTE group.

- Individual consent was gained from each of the research participants. Three of the researchers each conducted ten interviews in one of the TEOs while the fourth researcher conducted interviews with Maori and Pasifika tertiary teachers.

- For each case, a one-to-two hour interview (Appendix C) was audio taped and later transcribed. Working from the transcriptions, each researcher wrote a narrative and an 'in brief' version for each case (Appendix C). The narratives and 'in briefs' were then returned to the participants and amended as necessary.

- Following the completion of the writing of the narratives, the researchers compiled a summary of the information from each narrative (Appendix C) to assist with the analysis

and writing of the findings. It should be noted that the nine case studies from the Māori and Pasifika interviewee group were delayed and the narratives and analysis of these cases were not available until the final stages of the project (Appendix D).

- A literature review relating to dissemination practices was completed in preparation for the third phase of the study (Appendix E).

PHASE THREE

The objective for phase three of the project was to develop a strategy for improving the quality of learning and teaching through assessment within the participating tertiary organisations, using the findings of the project. The initial proposal was to prepare a resource that would consist of, or include, a CD that could be used in professional development programmes.

We invited key personnel from each of the participating tertiary organisations and members of our reference group (Appendix F) to attend two separate workshops to work with us to make decisions relating to the preparation of the resource. While Māori and Pasifika teachers were present at the workshops, none of the Māori and Pasifika case study interviewees attended which meant that their views regarding the preparation of the resource were not collected.

The first workshop was held on Thursday 6 September.
- The project group presented an overview of the first two phases of the project including a presentation of the relevant literature, a summary of the research findings and a presentation of dissemination practices (Appendix G).

- Following the presentation, a discussion was held by the workshop participants relating to ways that the project resources could best be used within the participating tertiary organisations. It was decided that the project group should prepare two resources for consideration at the second workshop: booklets containing individual cases with accompanying questions and a website containing the research materials.

The second workshop was held at Wintec on Thursday 18 October. The aim of this workshop was to present and receive feedback on the materials developed by the project group. It was made clear that while we had already used our current resources of time and funding for this phase of the project, we wished to present the feedback as suggestions for further development of the research materials in future projects.

- Firstly, the discussion focussed on the booklets (Appendix F). Each booklet contained introductory questions, focus themes and a brief description of the narrative on the first page, followed by the narrative in full. The initial page could also be produced as a poster. The final page contained discussion questions relating to the assessment issues raised in the narrative. Participants reviewed the booklets and provided feedback of ways they would use them in their own institutions to lead professional development discussions on assessment (Appendix F).

- Secondly, the discussion focussed on a draft website containing the research materials: the analysis of the case studies, additional material relating to the project collated by sector and the case studies which were presented in a full version as well as in an abridged version (Appendix F). It should be noted that, after the second workshop, further work was undertaken on the website to complete the work in progress and to respond to some of the participant feedback. Therefore, the version of the website presented here, http://tmf.wainet.org, is more advanced than the one that was viewed by the workshop participants.

PHASE FOUR

This final report was prepared and submitted to the Ministry of Education.

Results and Discussion

THE CASE STUDIES

The results and discussion from the 30 cases collected from the university sector, the ITP sector and the PTE sector are presented in the second milestone report (Appendix C) and a summary of the key findings is presented below. This is followed by a summary of the key findings from the group of nine cases collected from the Māori and Pasifika interviewees (Appendix D).

Key findings from the university, ITP and PTE sectors

Scope

- The case studies were drawn from a wide range of disciplines, including trades, professions and general qualifications and a wide range of NQF levels, spanning levels 1 – 9 and including certificates, undergraduate degrees and postgraduate degrees.
- The majority of teachers identified their students using broad descriptions such as 'domestic students', 'school leavers', 'international students', 'mature students', 'Māori and Pasifika students', and 'students with a wide range of previous formal learning experiences'. It was notable that few teachers mentioned students with disabilities.

Commonalities in the case study assessment strategies

- Many of the strategies across the three different sectors made use of authentic tasks such as applied projects, portfolios, case studies, practical demonstrations and work-based tasks.
- Assessment tasks were often described as containing components that were connected to each other and closely integrated with the teaching and learning.
- Many of the strategies ensured that learners were provided with formative feedback.

Assessment themes emerging from the case studies

Assessment

- is aligned with the teaching and/or the learning
- is student centred and relates to students' lives

- is designed with further study or the workplace in mind

- provides students with opportunities to integrate theory and practice

- motivates students to engage with the learning

- promotes self-reflection, self-direction and independent learning

- provides opportunities for formative feedback

- promotes cognitive skills and the pursuit of excellence

- recognizes student diversity and pays attention to the needs and interests of learning and the process of learning.

Changes or trends in assessment practices

- In the University sector, a notable trend, which the majority, but not all, favoured, was the shift away from traditional assessment tasks such as essays, tests and exams towards tasks that give greater recognition to oral communication and relevance to the students' lives.

- In the ITP sector, the most notable trend was a more integrated approach to assessment where assessment is an integral part of the teaching and learning.

- In the PTE sector, unit standards within national qualifications or provider qualifications had an important bearing on the teachers' views of assessment trends. Several mentioned using strategies to overcome perceived negative aspects of unit standard assessment, such as measurement of surface learning, over-assessment and assessment of discrete points rather than integrated assessment.

Factors motivating development of new assessment strategies

- Solving actual or potential problems relating to assessment design

- Responding to diverse students' learning needs and students' attitudes towards assessment

- Strengthening students' skills in particular areas

- Responding to industry needs and the importance of aligning the assessments with the learning outcomes and skills students would require in the workplace

- Responding to the ideas of other educators.

Strengths of the assessment strategies

- Improvement in student learning

- Assisting the teacher and the organization

- Application to other teaching and learning contexts.

Limitations of the assessment strategies

- Increasing the teachers' workload

- Manageability issues

- Student issues, (e.g. the time consuming nature of the assessment strategy, the performance aspect is intimidating)

- Class size

- Reliability

- Difficulties associated with competency-based assessment.

Innovation

The first specific objective of the project was to identify and document innovative assessment strategies. We have defined innovation from the points of view of the tertiary teachers who shared their practice in the case studies. In each case, the teacher felt that their assessment strategy was innovative. They had made a change for improvement, often in response to a perceived issue or problem. Few described their strategies with reference to general principles of assessment and recent assessment trends. Donald Schön's (Smith, 2007) notions of *reflection-in-action* and *reflection-on-action* provide some insight into practitioners' perspectives:

> *Reflection-in-action* is sometimes described as 'thinking on our feet'. It involves looking to our experiences, connecting with our feelings, and attending to our theories-in-use. It entails building new understandings to inform our actions in the situation that is unfolding (ibid, p.8).

'Thinking on our feet' is linked with the later *reflection-on-action*, when practitioners spend time exploring what happened and develop questions and ideas about activities and practice. *Innovative assessments* in the case studies are 'personalised versions of public codified

knowledge' (Eraut, 2003, p. 56). We are not claiming the assessment strategies are necessarily innovative with reference to recent research based on innovations in assessment.

Key findings from the Māori and Pasifika cases

Although the teachers who identified as Māori or Pasifika carried out their assessment practices within a mainstream institutional framework, all were conscious of their own cultural backgrounds and accepted the role of 'whole-of-person' teachers for their students as well as specific subject specialists. They identified five characteristics, which are outlined below, that may be regarded as points of difference to mainstream classes. While the two Pasifika teachers made less direct reference to these five cultural values, they were still very familiar with these traditional concepts. Both teachers had considerable marae experience and some fluency in the Māori language, as did the 'Pakeha' teacher who was interviewed as part of this group.

Whether kaupapa Māori or kaupapa Pasifika, this group of teachers saw no conflict of culture or interest and felt that the inclusion of traditional assessment methodologies (such as the use of either individual or group assessments, the inclusion of family or community in assessments, and the use of Marae based assessment) would benefit all students, not just Māori or Pasifika students. Without explicitly referring to mana and tapu within teaching, learning and assessment, all teachers implied such usage: 'There are customary ideas, values, and notions of correctness and appropriateness associated with matauranga Māori. More importantly, there is a tapu aspect to matauranga Māori' (Mead, 2003, p. 306).

Scope
- The majority of the Māori and Pasifika teachers taught students in lower entry foundation courses and trade certificates, spanning levels one to four.
- They mostly identified their students as being 'second chance learners still at high risk of failure' because of negative experiences during their secondary schooling.

Explaining the Kaupapa

The Māori and Pasifika teachers identified the following five characteristics, which are highly regarded as cultural values:

The five characteristics	*Cultural value terminology*
The need to rescue Māori and Pasifika students from their previous negative experiences in secondary school	kaitiaki me aroha
A much greater emphasis on educating 'the whole person'	kia tū tangata
Mixing personal and professional relationships	whanaungatanga / manaakitanga
Teacher and learner role reversals	tuakana / teina
The development of self-respect and responsibility in each student	tino rangatiratanga

Assessment themes emerging from the case studies

Assessment

- is feared by Māori students but learning is loved
- is student centred and relates to students' lives
- is designed with further study or the workplace in mind
- promotes self-reflection, self-direction and independent learning.

Changes or trends in assessment practices

- The majority of Māori and Pasifika teachers favoured a shift away from traditional assessment tasks such as essays, tests and exams towards tasks that give greater recognition to oral communication and relevance to the students' lives.
- An increased use was made of formative writing assessment in preparation for final written exams.
- Teachers made more use of learning support centres both in class and as referrals to assist with assessment practices.

- Many of the Māori and Pasifika teachers expressed frustration at having to learn the formalities of documentation, but on the whole they were very pleased to make use of formative assessment practices that are more in keeping with traditional cultural values.

Factors motivating development of new assessment strategies

- To improve success and retention rates for Māori and Pasifika students
- In response to industry needs
- In response to the importance of communication skills
- To ensure that both teachers and students are excited about learning.

Strengths of the assessment strategies

- All students, regardless of ethnicity could benefit from using kaupapa Māori assessment methodologies.
- Many elements or kaupapa are common to all learning and assessment subjects.
- Proving the value of Kaupapa Māori assessment methodologies.

Limitations of the assessment strategies

- Increasing the teachers' workload
- Professional isolation

DISSEMINATION

The results and discussion from phase three of the project are presented in the third milestone report (Appendix E). A summary of the key dissemination findings from the literature and from the project participants is presented in the following sections. Representatives from the university sector, the ITP sector and the PTE sector, including case study participants, attended the workshop. While Māori and Pasifika staff attended the workshops, no case study participant representatives from the Māori and Pasifika group were present and therefore their views are not represented in the following sections.

Dissemination practices

- Dissemination of innovation within an institution can be problematic, as it requires sustained activities to increase both the number of people and their level of understanding.
- Dissemination can be planned and systematically managed to move people from awareness to adoption or adaptation.
- The most effective methods for communicating change to tertiary teachers are through discussions with colleagues or participation in a workshop or seminar (McKenzie, Alexander, Harper, & Anderson, 2005).
- Communities of practice have the potential to be powerful tools for supporting tertiary teachers in learning from each other, developing further understanding of best practices, and building on each other's concepts for greater applicability of concepts.
- Dissemination plans should provide a flexible, accessible, and varied array of medium and messages to attract and accommodate diverse requirements.

Workshop participant responses to the case study resources

Print-based material

The content of the booklets
- is relevant and applies to various skills areas
- should focus on the main points and avoid too much information and repetition
- should include the narrative personal feeling; the context and the starter questions.

The presentation of the booklets
- should use more images, icons, white space, photos
- should use the questions as headings throughout the narrative or use an interview style.

The booklets could ideally be used
- by groups of teachers or individually, allowing people to analyse and draw links

- in an adapted form for professional development providing a mix of teaching structure, e.g. rationale, description, evaluation, followed by the narratives
- together with a facilitator's guide, e.g. the facilitator could have the full version and the teachers could have an abridged version
- in thematic groups, e.g. stories about independent learning grouped together.

The website material

It should be noted that changes have been made to the website following the workshop participants' feedback. The following comments relate to future development of the website for tertiary teachers.

The content of the website

- In its current form the material is suitable for researchers and less so for practitioners – include what is essential for practitioners.
- The 'In Brief' versions of the narratives are valuable.
- Information about the interviewees helps to interest and draw the viewer in.
- Include a facilitator's guide with instructions for use.
- Include a document printer friendly version.

The presentation of the website

- Include sharper formatting and concise presentation.
- Reduce the content and highlight key issues.
- Bring in conscious use of colour and design, include photos of those involved in the project as well as clips of the case study participants in action.

Accessing information and user focus

- For practitioners, adopt a conversational tone and address the reader as 'you'.
- Provide an interactive approach (using questions and answers to present the information).

- Provide different ways of approaching information using key word searches, themes (e.g. authentic assessment) and key assessment questions (e.g. Do you want your students to become independent learners?).

Limitations of the dissemination

McLuhan (2003, first published in 1964) coined the phrase 'the medium is the message', arguing that *how* a message is conveyed is just as, if not more, important than *what* is conveyed. This phrase resonated with the researchers' experience of the third phase of the research. In terms of dissemination, we were guided by Black & Wiliam's (1998) words in regard to changing teachers' practice, 'Teachers will not take up ideas… presented as general principles… What teachers need is a variety of living examples of implementation, as practised by teachers…'(p.10). We had anticipated the case studies provided this 'variety of living examples'.

However, the workshop participants were not uniformly enthusiastic about the medium chosen and the format in which the case studies were presented. There was a huge diversity of views, preferences and needs regarding ways in which the materials could best be used for the professional development of teachers.

This led us to review our progress on the second research objective to 'develop, implement and document good practices aimed at disseminating the results'. We developed a growing realisation of the complexity of the task. We concluded that the current research project, while providing a rich resource of assessment practices used by tertiary teachers, could not be presented in a single medium to meet the needs of all teachers in all of the tertiary institutions.

It became clear that further research into effective methods of dissemination in the tertiary sector is needed in order to contribute to professional practice and assist staff to enhance teaching and learning through assessment.

Māori and Pasifika comments about dissemination

Although there were no Māori and Pasifika case study participants at the workshops, these teachers did provide general comments during the interviews about the dissemination of their assessment practices. The researcher who conducted these interviews reported that all of the Māori and Pasifika teachers had previously attended workshops within mainstream settings to discuss teaching and assessment practices. It was reported that unless the teachers could gather within a "cultural home", they felt that their discussions would be limited. It was also reported that the teachers sometimes felt threatened when asked, especially by their students, to either explain or justify the inclusion of cultural practices. There were very limited opportunities, mainly informal and incidental, for Māori and Pasifika teachers to meet together to encourage and explore further assessment techniques.

Teachers who were confident in their own culture did not feel the need to explain cultural aspects of how they assessed, but being professionally and culturally isolated within many scattered teaching departments, they were looking for support and assurance. As long as they achieved improved retention and success for their students through improved assessment techniques they were happy with their efforts. Rather than attending separate hui (workshop), the Māori and Pasifika interviewees would prefer the experts to come to the teachers' own classrooms. The professional isolation, or mate mokemoke, felt by the Māori and Pasifika teachers remains as the biggest challenge.

Local dissemination activities

Three of the organisations involved in the project are currently planning professional development activities to begin the process of disseminating the research materials locally. In the university sector, as part of a series of professional development workshops to be held in February 2008, two

workshops will focus on assessment. The first workshop will explore the core principles of good assessment practices while the second will focus on practical strategies. In the second workshop, the Waikato university academics that participated in this study of innovative assessment will share their practices. Participants at the workshop will be encouraged to explore these practical assessment strategies and consider their applicability for their own contexts.

At Wintec, the ASSETT Centre, responsible for the professional development of tutors, is planning a series of workshops on effective assessment, using one case study per session as the starting point. Current plans also include development of an online community of practice as a follow-up to the workshops, thus encouraging tutors to continuously share and consider their approaches to effective assessment.

In the PTE sector, Sir George Seymour College and Travel Careers and Training have planned tutor-training sessions for the unit standard on designing assessment. The case studies will be used as part of these sessions, which will take place in January and February 2008.

Conclusions

The research project group, key personnel from each of the participating tertiary organisations and members of our reference group concluded that the case studies and research materials provide a richness of information and valuable insights into the assessment views and practices of New Zealand tertiary teachers. They also concluded that the research materials contained in the website (http://tmf.wainet.org) and the draft booklets are an important learning resource which should be made available to the tertiary sector.

It was recognised that developing resources to suit the wide range of needs and preferences of tertiary teachers across a broad range of teaching and learning contexts is a complex task. It was also recognised that developing a website and print-based resources from our research materials is a demanding task which would require the expertise of experienced web-based resource designers. It was concluded that the draft resources produced by this project team, together with the feedback from the workshop participants, provide a valuable foundation from which such future development can proceed.

Recommendations

It is recommended that:

- Ako Aotearoa undertakes a) to maintain the current website of research materials developed as part of this project and b) to add reports from organisations that make use of the materials as part of their professional development activities

- further research be undertaken to investigate effective methods of dissemination of assessment practices for tertiary teachers who have a diverse range of learning styles and professional development needs

- future development of the research materials, informed by the research above, be undertaken by experienced web-based resource designers to ensure that the materials can be accessed by practitioners

- further research be undertaken to build on the research materials from the current study, including a focus on student perceptions of how such assessment strategies enhance their learning.

Appendices

Appendix A: Assessment literature review

Appendix B: Ethics approval

Appendix C: Milestone two report

Appendix D: Māori and Pasifika cases

Appendix E: Dissemination literature review

Appendix F: Milestone three report

Appendix G: Workshop presentations: literature, key findings and dissemination

References

Angelo, T. A. & Cross, K. P. (1993). *Classroom Assessment Techniques: A Handbook for College Teachers.* (2nd ed.). San Francisco: Jossey-Bass.

Biggs, J. B. (2003). *Teaching for quality learning at University*. (2nd ed.). Buckingham: Open University Press.

Black, P. & Wiliam, D. (1998). Assessment and classroom learning. *Assessment in Education*, *5*(1), 7-74.

Carless, D. M. (2002). The 'mini-viva' as a tool to enhance assessment for learning. *Assessment and Evaluation in Higher Education, 27*(4), 353-363.

Codd, J., Brown, M., Clark, J., McPherson, J., O'Neill, H., O'Neill, J., Waitere-Ang, H., & Zepke, N., (2002) *Review of future-focused research on teaching and learning. Report to the Ministry of Education.* Wellington: Ministry of Education.

Crooks, T. J. (1988). The impact of classroom evaluation practices on students. *Review of Educational Research, 58*(4), 438-481.

Elton, L. (2004). A challenge to assessment practice, *Higher Education Quarterly, 58* (1).

Eraut, M. (2003). Transfer of knowledge between education and the workplace. In H. P. A. Boshuizen (ed.), *Expertise development: The transition between school and work* (pp. 55 – 72). Available from http://www.ou.nl/Docs/Expertise/OTEC/Publicaties/els%20boshuizen/deel53.pdf). Heerlen: Open Universiteit Maastricht.

Feltham, S. (2004). Assessment programme lauded. *New Zealand Education Gazette, 83* (18), 1-5.

Gibbs, G. (1995). *Assessing student-centred courses*. Oxford: Oxford Centre for Staff Development.

Gibbs, G., & Simpson, C. (2003). *Does your assessment support your students' learning?* Retrieved June 20, 2005, from http://www.open.ac.uk/science/fdtl/documents/lit-review.pdf

Knight, P. (2001). *A briefing on key concepts*. York: LTSN Generic Centre Assessment Series No.7.

Loacker, G., & Mentkowski, M. (1993). Creating a culture where assessment improves learning. In T. Banta (Ed.) *Are we making a difference?* San Francisco: Jossey-Bass.

Loacker, G. (2003). Taking self assessment seriously. In V. Smith (Ed.), *Essays on teaching excellence*, *15*(2). Ft. Collins, CO: The Professional and Organizational Development Network in Higher Education.

Marr, B., Helme, S., & Tout, D. (2003). *Rethinking assessment: strategies for holistic adult numeracy assessment: a resource book for practitioners, policy-makers, researchers and teachers*. Melbourne: Language Australia.

McKenzie, J., Alexander, S., Harper, C. & Anderson, S. (2005) *Dissemination, adoption and adaptation of project innovations in higher education.* Sydney: UTS Printing Services. Retrieved July 8, 2007 from http://www.carrickinstitute.edu.au/carrick/webdav/site/carricksite/users/siteadmin/public/dissemination_disseminationadoptionandadaptation_report_2005.pdf?bcsi_scan_09139

[8A8695F8829=0&bcsi_scan_filename=dissemination_disseminationadoptionandadaptation_report_2005.pdf](#)

McLuhan, M. (2003). *Understanding Media: The extensions of man*. Corte Madera, CA: Gingko Press.

Mead, H. M. (2003). *Tikanga Maori: Living by Maori Values*. Wellington, N.Z.: Huia.

Ministry of Education (May, 2002). *Tertiary Education Strategy 2002/07*. Wellington: Author.

Ministry of Education (July, 2002). *Interim statement of tertiary education priorities 2002/07*. Wellington: Author.

Ministry of Education (no date). *Request for Proposals: Teaching Matters Forum*. Retrieved November 22, 2007 from http://cms.steo.govt.nz/News+and+Info/Teaching+Matters/Request+for+Proposals.htm

Ministry of Education (no date). *Statement of tertiary education priorities 2005/07:* Retrieved November 26, 2007 from http://www.minedu.govt.nz/web/downloadable/dl10296_v1/moe025-step05.pdf

Musgrave, J., & Matheson, R. (2005, June). *Juxtaposing formative and summative assessments in ways that make sense to learning: A New Zealand experience* Paper presented at International Conference on Enhancing Teaching and Learning through Assessment. Hong Kong Polytechnic University: Hong Kong.

NZCER (2006). *Assessment for foundation learning: The importance of purposeful assessment in adult literacy, numeracy and language courses*. Retrieved March 1, 2007 from http://www.minedu.govt.nz/web/downloadable/dl11359_v1/assessment-study.pdf

Sadler, D.R. (1989). Formative assessment and the design of instructional systems. *Instructional Science*, *18*, 119-144.

Sadler, D. R. (1998). Formative assessment: revisiting the territory. *Assessment in Education*, *5*(1), 77-84.

Smith, M.K. (2007). *Donald Schön: Learning, reflection and change*. Retrieved October 22, 2007 from http://www.infed.org/thinkers/et-schon.htm

The Hong Kong Institute of Education and LOAP (2005). *Introduction.* Retrieved November 26, 2007 from the LOAP project website: http://www.ied.edu.hk/loap/intro.html

Viskovic, A. (2000). NZQA at the turn of the century: what happened to the grand vision? *New Zealand Journal of Adult Learning, 28*(1), 68 – 85.

Viskovic, A. (September, 2004). *Some pros and cons of a community of practice approach to professional development for tertiary teaching.* Paper presented at the ITPNZ Staff Developers' Conference, Waikato Institute of Technology: Hamilton.

Wenger, E., McDermott, R., & Snyder, W. (2002). *Cultivating communities of practice: a guide to managing knowledge.* Boston: Harvard Business School Press.

Zepke, N. (2003). Reflecting-learning-teaching. In N. Zepke, D. Nugent and L. Leach, (Eds.), *Reflection to transformation: A self-help book for teachers* (pp.17-33). Palmerston North: Dunmore Press.