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Assessment of student learning in a business internship

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Abstract

Internships, like other forms of cooperative education, involve students undertaking work as an integrated component of their tertiary education programme. It is only relatively recently that research has been undertaken to consider what it is that students actually learn when undertaking such work. This is because workplace learning is complex, informal, and subject to the contextual influences of the particular workplace. Such complexities are heightened in some disciplines, like business, where the work occurs in diverse workplace settings, with the work requirements being unique to each student. Not surprisingly, there is even less research that may assist practitioners to find ways of assessing such learning.

Most forms of summative assessment are based on adherence to the principles of criterion-referencing, which require using the same criteria and set of standards for all students. But when the learning takes place away from the formal, structured environment of an educational setting, underpinned by a fixed and 'known' curriculum, adoption of such principles is problematic, and can create the conditions for assessment to be inherently unfair (and therefore invalid). This is because they can fail to take account of the individual and variable nature of the work, the contextual influences involved, and the conscious and unconscious biases of the assessors.

So how does one assess student performance and learning in cooperative education? This thesis sets out to address this question in relation to a business internship that is part of an undergraduate degree programme in a large New Zealand polytechnic. A multi-theoretical approach was taken to the study, which provided valuable frames of reference for viewing assessment of learning. By adopting an interpretive methodology, primarily driven through participatory action research, the contextual complexities involved were able to be incorporated into the research design. Through engagement with the practitioner, a self-assessed, evidence-based portfolio model of assessment was created. A key feature of the model is that the 'truth' of students' performance emerges through consensus, based on an informed understanding of the subjective elements and

contextual influences present. An important contribution is the on-going dialogue that occurs, throughout the work placement, between the stakeholders (employers, students and academics).

The study has found that the assessment model developed was able to address the complexities involved. The stakeholders supported and valued the portfolio assessment model, and it was apparent that the formative aspects of the portfolio contributed positively to its summative outcome, without seemingly compromising the nature of either. The portfolio also had a high ‘backwash’ effect on learning, contributing to its consequential validity. Such learning included students’ increased awareness of the important competencies required in the workplace and how such competencies contribute to effective performance. In addition, the self-assessed nature of the model contributed to students’ development as lifelong assessors of their own learning; preparing them to become self-regulating professionals. Finally, it was apparent that informal, emergent learning, derived from the sociocultural influences present, was an important feature of students’ workplace experiences.

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Chapter 1

Introduction

This thesis aims to address the question: ‘How can a student’s workplace performance and learning be assessed appropriately within a business internship?’ This chapter outlines what is meant by an internship and its relationship with cooperative education. A brief history of cooperative education is discussed, followed by the background, rationale and purpose of this study. Contextual information is then provided on cooperative education both within the institution in which the study takes place, as well as within the tertiary education sector in New Zealand. The chapter concludes with a synopsis of how this thesis is structured by providing an outline of each of the remaining chapters.

1.1 What is an internship?

An internship is a form of workplace learning in which a student spends a period of time in the workplace as an integrated part of an academic programme of study. There is considerable variability internationally in the terminology used when students undertake workplace learning, and the different forms it takes. For example, in the United Kingdom (UK), traditionally workplace learning has taken on the form of a year-long work placement which usually occurs in the third year of a four year degree, effectively ‘sandwiched’ between periods of on-campus study, hence the phrase ‘sandwich degree programme’ (Gray, 2001). Following the release of the Dearing Report (Dearing, 1997), different forms of workplace learning were introduced in university degrees in the UK that were not necessarily of one year’s duration. Thus a broader common term emerged called work-based learning, which incorporates all those forms of learning at a higher education level that are derived from undertaking paid or unpaid work as part of an academic programme (Gray, 2001). In Australia, the common term used for this form of learning is work-integrated learning. However, this is a broader term and includes all those learning activities which combine learning with work related activities, whether these activities are simulated (e.g., within a classroom) or occur in a real workplace (Atchison, Pollock, Reeders & Rizzetti, 1999). In contrast, in many

other countries, including New Zealand, work-integrated learning is a term that is used interchangeably with cooperative education (e.g., see website home pages of NZACE, 2009; and WACE, 2009), which focuses on learning that occurs within ‘real’ workplaces only.

Cooperative education has been described as a “strategy of education that involves collaboration between a student, an educational institution and an employer, hence the use of the term cooperative” (Eames, 2003, p. 1). According to the National Commission for Cooperative Education (2008) in the USA, some of the essential characteristics of a cooperative education programme are that: there are *multiple work terms* integrated throughout the curricula and that they are *formally sequenced and progressive in nature*; the work is arranged within *appropriate learning environments* and involves *productive work*; the work is *monitored and supervised*; there is *formal recognition of the work experience* (e.g., through grade, credit, notation on transcripts); *appropriate preparation for the work* is provided; *remuneration* is agreed for the work; and that there is provision for *employer and school evaluation* of the quality and relevance of the work experience and curriculum. While internships share most of the characteristics of cooperative education, a key difference is that internships tend to be one-off in nature, are of limited duration, and usually occur towards the end of the programme in the form of a capstone experience (Groenewald, 2004). Also, in some countries, like New Zealand, internships can involve either paid or non-paid work, depending on the discipline nature of the internship and the contextual circumstances involved. Despite these differences, the two terms are generally used interchangeably in much of the literature in relation to discussions on learning and assessment. In this thesis, the term cooperative education (or ‘co-op’) is used generically, and will include internships, being viewed as work-integrated learning that involves students spending time in the workplace as part of an academic program of study, and that involves some form of summative assessment. The term internship is used only when there are notable differences relating to student learning and assessment or where it is used specifically by an author.

1.2 Brief history of cooperative education

The origins of cooperative education go back several centuries to the days of apprenticeships in medieval Europe in which the novice (or student) learned their craft by working alongside the expert tradesperson or professional (Land, 1996). Cooperative education, as it is understood today in post-industrial society, is generally considered to have originated in North America in the early 1900s through the pioneering work of Hermann Schneider. Schneider was the Dean of Engineering at the University of Cincinnati in the early 1900s who believed that there were many aspects of engineering that could not be learned in the classroom alone (Heermann, 1973). As a result, he structured the programme in a way that required students to spend alternating periods in the classroom and the workplace, necessitating cooperation between the university and relevant employers. Despite its success, this form of education did not expand greatly until the mid-1960s when the US federal government provided direct funding (Howard, 2004; Sovilla & Varty, 2004). About this time cooperative education programmes began to be introduced in Canada, although major growth did not occur until the late 1970s (Cutt & Loken, 1995). While sandwich education programmes in the UK can be traced back to the mid-19th century, it was not until the 1990s that such programmes became a common feature of university academic programmes. Eames (2003) notes this is likely to have occurred because around this time British polytechnics, which commonly had many cooperative education programmes, were granted university status.

Cooperative education is now practised around the world in its different forms (Wilson, 1997). Schneider's original model of multiple work terms integrated with an academic programme is still viewed today as one of the better forms of work-integrated learning. However, there are many other forms that provide valuable learning experiences for students, being "tailored to suit the particular needs of the stakeholders involved, whilst considering all the available resources" (Gibson et al., 2008, p. 5). While a global database of cooperative education programmes does not exist, a membership listing of the World Association for Co-operative Education indicates there are over 2,000 members in 48 countries (WACE, 2009), many of whom are likely to be active practitioners. However, apart from North America and the UK, cooperative education at higher

levels of learning, such as in degree programmes, appears to be a relatively recent phenomenon outside the teaching and medicine disciplines.

1.3 Background and rationale for this study

I became involved in cooperative education in the mid 1990s when asked by the Business School at Takahe Polytechnic (a pseudonym), New Zealand to coordinate the business internship, which was part of the business undergraduate degree. As a teacher of accountancy and information systems I knew very little about this form of education at the time, but over the years came to be a passionate advocate for it. While I moved away from this particular role in 2002, I remained involved in cooperative education in different ways. I was fortunate to attend many local and international conferences and became familiar with the issues and challenges faced by many co-op practitioners around the world. A short period after I left the business internship role, there was an institutional review of cooperative education. Following this review I was asked to take on the role of promoting and supporting cooperative education across the institution as part of my role as an Associate Dean in the Undergraduate Division (details of the polytechnic's organisation structure are provided in Section 1.5). One of the common issues identified by my colleagues in the polytechnic, as well as elsewhere in New Zealand (NZ) and internationally, was assessment of student learning. In particular, how to conduct assessment in ways that: incorporated both work performance and learning; contributed to student learning; met institutional requirements for summative assessment (i.e., in the same way as other academic papers); and addressed the complex, contextual issues impacting on assessment.

When reviewing the literature for possible solutions to these issues, it became apparent that research in co-op assessment was an under-developed area. The lack of research in assessment appeared to be a symptom of a broader concern with research generally in cooperative education. Howard (2004) notes that cooperative education has “not made consistent and systematic efforts to surface questions and then seek answers, as have other fields of study” (p. 5). This view of the poor status of research in co-op is also echoed by others. For example, Barktus and Stull (1997, 2004) and Wilson (1988) consider that research undertaken in cooperative education tends to be descriptive, pragmatic and

lacking a theoretical framework, which may explain Howard's (2004) view that cooperative education has not been fully accepted into higher education.

Of the research in cooperative education that has considered assessment little attention appears to have been given to assessment of individual student learning for the purpose of summative grading. This may relate to the perceived difficulty in determining the *educational* outcomes of cooperative education (Ryan, Toohey, & Hughes, 1996; Van Gyn, Cutt, Loken, & Ricks, 1997), and the lack of understanding of what students are really learning in the workplace (Wilson, 1989). In relation to internships, Gentry (1990) suggests the lack of understanding of what students are learning reflects the difficulty in monitoring the student's learning, noting that while "internships are extremely high on the experiential, the quality of the learning involved may be suspect" (p. 18). Recognising the lack of attention to the educational outcomes of cooperative education, Cates and Jones (1999) were commissioned by the Cooperative Education and Internships Association (CEIA) to develop the publication *Learning Outcomes: The Educational Value of Cooperative Education*. The authors provide valuable guidance on how to consider student learning and the implications for future research. Subsequent to publication of this work, important research has been done that provides useful insights into what students are actually learning in the workplace (e.g., Eames, 2003; Johnston, Angerilli, & Gajdamaschko, 2004). A common aspect of the research conducted into student learning in co-op is that there is no common theme in what students actually learn. For example, what is apparent from the work of Eames and Johnston et al. is that student learning is broad in nature, complex and individual, influenced by the contextual factors involved.

An important feature of Cates and Jones' (1999) work in relation to assessment was their advocacy for co-op practitioners to establish learning goals, create a curriculum supported by a theoretical framework of learning, and develop appropriate assessment of learning. While this valuable resource is likely to have contributed to an increase in some form of student assessment in cooperative education in the USA (as noted by Doherty, Riordan, & Roth, 2002) research in assessment appears to be predominantly focused on *programme* assessment. This views educational outcomes more broadly from an evaluative and collective

viewpoint, for the purpose of demonstrating the quality of the co-op programme and how it may be improved. According to Hodges, Smith and Jones (2004), such a focus is driven by the increasing accountability demands of external agencies, such as state governments. A further possible explanation for the lack of attention to research involving assessment of individual student learning is that most co-op programmes in North America, and sandwich courses in the UK, tend not to be credit bearing in the same way as other academic papers (i.e., subject to individual summative assessment and grading). For example, an interesting and valuable pilot study on assessment of learning outcomes in co-op, involving five colleges within a large US university, was conducted by Cates and Lemaster (2004). However, the co-op component is not credit bearing, and it is not clear whether and how the instrument developed may be used for summative purposes in relation to individual student grading.

A number of years ago Wilson (1989) observed that there was a dearth of research in the area of assessment of individual student learning in co-op, noting that he found only two research articles on this topic. One was produced by Gordon (1976) who reported on the activities of a group called Cooperative Assessment of Experiential Learning (CAEL). This group apparently produced a number of working papers from the research with the aim of assisting experiential learning educators with assessing student learning. However, Eames (2003) notes that the author “did not elaborate on the contents of these papers and there is no mention of this work in later co-op literature” (p. 35), suggesting it had minimal impact on the co-op community. Eames intimates that this may be because the authors appear to have taken a positivist approach to their inquiry, noting the emphasis in Gordon’s article placed on ‘measurement’. As will be discussed in the following chapters when reviewing the literature, a positivist approach to assessment generally fails to take an educational view of learning and is unable to deal with the inherent complexities involved in cooperative education.

While little attention has been given in the literature to assessment of individual learning, it is apparent even less attention has been given to assessment of individual workplace performance and how this relates to student learning and development. For example, while Bates (2003) presents an interesting framework for assessing an internship, this focuses solely on students’ critical reflections on

their experiences, with no consideration given to assessment in relation to students' on-the-job performance and how this provides knowledge about themselves and their professional development needs. When work performance is a factor in assessment, it seems much reliance is placed on employer reports, which are then interpreted by the academic in the allocation of grades or credit (Wilson, 1989).

When student grades are the outcome of summative assessment, this can create a problem for assessing workplace performance as it generally fails to take account of reasonable levels of validity and reliability, particularly the issue of *fairness*. A common way of addressing fairness in traditional academic curricula is through the use of criterion-referencing. In fact the use of a criterion-referenced approach to assessment - matched against expected competency levels of students - was one of four recommended approaches to assessment that came out of a study on educational outcomes and their assessment in co-op programmes, commissioned by the USA Government in the late 1970s (Wilson, 1981). However, as Eames (2003) again notes, "no mention is made of them [i.e., the assessment approaches] in the subsequent international literature" (p. 25). This may well be because a criterion-referenced approach to assessment is not straightforward when applied to complex, uncertain and less structured learning environments, such as those that occur in cooperative education. Such complexities include the need to consider the different types of work tasks and activities required of students, and the different competencies they will need to employ at different levels of ability. Add to this the different levels of support each student will get from work-peers, and the subjective views and potential biases of employers, some of whom may have minimal knowledge and training in assessing performance, then arguably such an approach would find it difficult to address issues of fairness and equity. This may explain why there appears to be a tendency to avoid the inclusion of work performance in assessment.

A further gap in the cooperative education literature is that little attention has been given to assessment practices that are *sustainable*. Boud (2000) considers that sustainable assessment practices must not only attend to students' current learning, but must also contribute to their future learning. He suggests that "in order for students to become effective lifelong learners, they need also to

be prepared to undertake assessment of learning tasks they face throughout their lives” (p. 152). Given the importance of cooperative education in preparing students for professional practice, this seems to present an ideal opportunity to involve them in assessing their own performance and learning. However, again there is little research in this field generally, and cooperative education specifically. For example, portfolio-based assessment is a common method of incorporating self-assessment, but Johnston (2004) notes that “there are many gaps in the research on innovative assessment methods such as portfolios. None of the [positivist or interpretive] research traditions includes much longitudinal or action research” (p. 409).

In their summary of various authors’ views on developing research in cooperative education and internships, Linn and Miller (2004) considered that context must also be taken into consideration when designing research in cooperative education. This includes the *purpose* of the research and the factors influencing the practice, particularly the perspectives of the different stakeholders involved. Context also relates to the *standpoint* of the researcher and how this influences the development of the inquiry and the approaches taken. Finally, any study of co-op practice must also be supported by *a review of the literature* and how this informs the nature of the inquiry. Paradoxically, it is perhaps because of these contextual complexities that Ricks et al. (1990) believe creates major limitations on what might be considered as transferable good practices, as these “cannot be generalised to other programs unless critical program variables are matched, for example, student population, work terms and so on” (p. 14). A further contextual variable for assessment is the curriculum and the lack of an agreed body of knowledge in cooperative education (Eames, 2003). Added to this is the informal nature of learning that occurs in a variety workplace settings, in which the academic has little control over what each student will actually learn. As Dawson (1976) pointed out over 30 years ago:

It is one thing to formulate instructional objectives and to evaluate their outcome in a structured academic situation where the instructor is largely in charge. It is quite another thing to do so in cooperative education placements, where the specifics of the work situation are often not known in advance and furthermore are not controllable by the college. (p. 24)

A further contextual complexity involved in the assessment of cooperative education is the situated and experiential nature of the learning. Grosjean (2004) reports on an inquiry that considered the contextual influences on learning in cooperative education, concluding that “the context in which a learning activity takes place is crucial to the way co-op students develop knowledge and skills” (p. 48). Of particular note for future research on assessment is his view that “the power of the academic context, particularly through setting and assessment of academic progress, influences co-op students’ attitudes and approaches to learning” (p. 48). In other words, assessment practices in co-op must not only consider the workplace context, but must also consider the academic context. A further complexity influencing assessment is the sociocultural nature of workplace learning (Eames, 2003). However, as James (2006) notes, little research has been done that considers summative assessment from a sociocultural theoretical perspective.

In summary, the complexities and contextual variables involved in student learning in the workplace have resulted in limited research in co-op assessment. In his thesis involving a longitudinal, qualitative study of student learning in cooperative education, Eames (2003) concludes that the issue of assessing student learning remains a key challenge for co-op practitioners, and suggests that a different form of assessment needs to be developed; one that recognises the sociocultural dimension of learning:

Students should be prepared for an assessment environment in the placement that is different to that which they had experienced in the university. Assessment procedures used to determine student learning on placement should reflect a view of learning as a socially mediated and participatory activity. (p. 333)

1.4 Purpose of this study

So how does one assess student performance and learning in cooperative education? What should be assessed and who should be assessing it? These were the initial questions I had when considering undertaking this thesis. As is outlined in Section 1.5, most cooperative education practices in my own institution took the form of an internship. Given my past knowledge and experience of the

internship in the business degree ('the business internship') this appeared to be a valuable and appropriate practice setting for researching the issue of assessment.

The purpose of this study was to create an assessment model for an internship. The study was contextualised within a business undergraduate degree programme at the Takahe Polytechnic in New Zealand. The thesis addresses the following research question:

How can a student's workplace performance and learning be assessed appropriately within a business internship?

Being '*assessed appropriately*' is taken here to mean that the assessment method (model):

- i. Is informed and supported by the literature;
- ii. Is informed by current assessment practices and contextual influences affecting the business internship;
- iii. Is acceptable to the key stakeholders involved in the business internship in which the assessment model is adopted

A collaborative approach was taken to the study, involving the researcher working with the business internship coordinator (the 'practitioner') through an intervention in current assessment practices. This approach provides the basis for gaining valuable insights into the contextual variables and stakeholder views that influenced assessment practices. The literature was used to provide valuable information for the on-going dialogue between the researcher and the practitioner, leading up to the implementation of a new model of assessment over a two semester period. Details of the qualitative approach taken to the inquiry are discussed in detail in Chapter 5.

1.5 Takahe Polytechnic and cooperative education

Takahe Polytechnic has been in existence for just over 30 years. Initially, it offered pre-degree programmes in engineering and business. In the following years the polytechnic grew rapidly, expanding its range of course offerings. By 2007, the polytechnic provided courses in most disciplines, with approximately 10,000 equivalent full-time students (approximately 20,000 students in total, when

part-time students are included). The polytechnic has over 100 programme offerings ranging from pre-degree to postgraduate level, with approximately two thirds of the programmes at pre-degree or undergraduate degree level. The polytechnic is structured into 17 Schools, reflecting the broad range of disciplines. The Schools are part of a matrix organisation structure, and are supported centrally by three Divisions (Undergraduate, Postgraduate, and Vocational Education & Training). Each Division is managed by a Dean and their associates, who have responsibility for the coordination and quality of the programmes across the institute. However, no staff within the Schools have a direct reporting relationship with the Deans or Associate Deans.

Cooperative education is a feature of most academic programmes of two years duration or more in the Vocational Education and Training (VET) and Undergraduate (UG) Divisions. Most co-op activity occurs in the UG Division. This is largely because most pre-degree programmes (certificates and diplomas) in the VET Division tend to be of a much shorter duration (i.e., six months or one year's duration), providing insufficient time to incorporate a work component. Of the 17 programmes in the polytechnic offering some form of cooperative education, 12 are of an internship nature (i.e., offer a single work placement usually in the final year of the programme). The remaining five meet most of the attributes common to cooperative education programmes, with multiple periods of time spent in the workplace over the duration of the programme. Only two of these co-op programmes are outside the traditional teaching and medicine disciplines (i.e., Social Practice and Veterinary Nursing).

While there is an institutional policy and set of guidelines informing cooperative education practices, these are broad in scope and generally principle-based, enabling practitioners to develop co-op programmes in ways that suit the contextual circumstances of their discipline area. For example, in the nursing degree, as in other nursing degrees in New Zealand, students are not paid for the work they do in clinical practice. In fact, the polytechnic relies on additional government funding so that it can pay employers to take its students (in order to cover the additional costs involved in clinical supervision). In practice, each co-op programme at Takahe Polytechnic is unique, having different work periods, different sets of learning outcomes, and different assessment methods. While

sharing of ‘good practice’ is encouraged, Schools offering co-op programmes are largely autonomous and free to determine how these programmes are run. The co-op component, like all other papers within an academic programme, is accountable to the School’s academic programme committee, although staffing matters are managed by the Head of School (including allocation of staff teaching responsibilities). Such committees are largely made up of senior academic staff in the School, together with student representation. Each committee is also expected to have one or more industry people to provide an external, practice perspective for the programme.

The business internship is part of the Takahe’s business degree. The degree is a three year full-time programme that can also be completed part-time over a longer period. The programme is offered on a semester basis (i.e., with two semester periods per year). At the time of commencing this study, the degree had approximately 700 students enrolled. Taking into account a number of part-time student enrolments, this equates to the equivalent of 500 full-time students. Students can choose from five business specialisations or ‘majors’, including: Accountancy; Finance; Information Systems; Management; and Marketing. The degree requires completion of 360 credits (i.e., 20 papers of 18 credits each). The business internship is a final year compulsory paper (of 18 credits) for students who have minimal or no prior relevant work experience. Approximately 25 - 50 students enrol in the business internship each semester. The internship requires students to undertake a work placement of approximately 140 hours duration, typically structured as two days per week for 10 weeks. Of particular importance to this thesis is that the business internship, like all co-op programmes in the institution that are part of an academic programme, is required to specify expected learning outcomes and assess these in accordance with institutional policies. This requires adoption of some form of summative assessment, involving a grade outcome. In effect, all co-op components of a programme must find ways of assessing learning outcomes in the same way as any other paper within the academic programme. Further details of the business internship, including how it is currently assessed, the nature of student placements in business, and how the placements are sourced and managed, are provided in Chapter 6.

1.6 Cooperative education and the tertiary education sector in New Zealand

The term 'tertiary education' refers to all formal post-secondary education in New Zealand. The term 'higher education' will be used in this thesis to describe undergraduate and postgraduate education only. At the time of this study, New Zealand had eight universities, 20 polytechnics/institutes of technology, three wananga (Māori tertiary education institutions), and over 700 private training establishments (Ministry of Education, 2008).

There are two broad types of tertiary education programmes or qualifications in New Zealand: *National* qualifications, which are nationally recognised, skills-based programmes that follow a common curricula and consistent standards; and *provider-developed* (local) qualifications, which are developed, and usually offered, by a single education provider (NZQA, 2008). The private training establishments largely offer pre-degree, skills-based national qualifications. Many of these programmes are developed through industry training organisations (ITOs), which involve structured combinations of on-job and off-job training across an industry. In these situations students are also employees who are registered in formal training agreements. Typically, these on-job and off-job learning experiences are structured in an integrative way (Hodges & Coolbear, 1998), and can therefore be said to be a form of cooperative education.

With regard to the public sector, while those universities in New Zealand that offer degrees in teaching and medicine will incorporate some form of cooperative education, only a few universities have embraced cooperative education in other disciplines (such as: Auckland University of Technology, The University of Waikato, and Victoria University). As a result, it is largely polytechnics that account for most cooperative education activity in New Zealand. For example, the most recent database of cooperative education programmes in New Zealand, compiled by the New Zealand Association for Cooperative Education listed just under 200 programmes in universities and polytechnics that had a cooperative education component (NZACE, 1996). Of these, less than 10% were from university programmes. While the number of programmes listed in the database is not insignificant, such a number was in fact a very small proportion of

the total number of education programmes in New Zealand at the time. As collation of the database was obtained through the voluntary provision of information from institutions, it is likely that there were in fact a number of other co-op programmes that were not listed. However, even allowing for gaps in the list, it seems likely that the vast majority of degree programmes offered at either polytechnics or universities in New Zealand do not have a cooperative education component. While the database was compiled in the mid-1990s, there is no evidence to suggest that co-op has grown significantly in New Zealand since then.

The reason that cooperative education is more prevalent at polytechnics is that traditionally polytechnics have had a more applied, practice-focus in their programmes. This can be traced back to the origins of polytechnics which were created to deliver skills-based, trades-related training programmes. In recent years, changes in government policies enabled polytechnics to deliver undergraduate and postgraduate degrees, thereby competing for the same students with established universities. A few larger polytechnics, like Takahe, used their historical strengths of being practice-focused to incorporate a cooperative education component in some of their degree programmes, thereby differentiating their degrees from universities. This helped them to attract students in an increasingly competitive education market.

A further factor affecting the competitive nature of tertiary education in New Zealand is the reduction in government funding over the past decade, resulting in a substantial increase in student fees. For example, at Takahe Polytechnic student fees in 2006 accounted for 37% of the institution's total income. A decade earlier, student fees accounted for less than 30% of total income. Typically, full-time students will pay in excess of NZ\$4,000 (approximately US\$3,000) per year to study a business degree in New Zealand. As a result, students are becoming increasingly demanding of the level of quality they expect from education providers. This particularly applies to assessment practices, with increasing attention being paid to transparency and fairness. Given the nature of student learning in cooperative education, the ability to demonstrate that summative assessment practices meet reasonable levels of validity and reliability, particularly fairness, is a growing and challenging issue for co-op practitioners.

1.7 Structure of this thesis

This thesis is organised into nine chapters. A summary of the remaining eight chapters follows:

Chapter 2 is the first of three chapters that review different aspects of the literature of relevance to this thesis. This chapter focuses on the different purposes of assessment, and how these relate to cooperative education. Particular attention is given to formative assessment and summative assessment, including the overlaps and tensions between them. The discussion of summative assessment considers the implications of taking a criterion-referenced approach in cooperative education, including the complexities and limitations in measuring and developing desirable workplace competencies.

Chapter 3 reviews the literature in relation to the core principles that should underpin all summative assessment, that is, validity and reliability. How these principles may be applied to cooperative education is considered. The chapter concludes by reviewing these principles in relation to alternative assessment methods and approaches that attempt to address the limitations associated with conventional assessment.

Chapter 4 considers a number of theories of learning of relevance to cooperative education, and considers how these help inform assessment practices. Attention is given to the historical influence of behaviourism on learning and how this still influences assessment practices today. This is followed by a review of a range of theories covering cognition and learning (particularly metacognition), constructivism, experiential learning theory, and reflective practice. Finally, attention is given to those learning theories that consider the situated, social and cultural dimensions of learning in the workplace.

Chapter 5 discusses the methodological approach taken in this thesis. This includes an outline of the theoretical framework, the data collection methods, and the research design. Attention is also given to how the data were analysed, followed by a discussion of how rigour and trustworthiness have been addressed.

The final part of the chapter focuses on the ethical and moral issues involved in research inquiries, and how these were attended to in this study.

Chapter 6 describes the process undertaken in the development of an assessment model implemented through intervention in the business internship. An outline of the contextual influences impacting on the assessment is provided, including the unresolved stakeholder issues and concerns with the business internship's current assessment methods. Analysis of these issues follows, which serves to inform the development of a more integrated assessment model. This model is then discussed, including the criteria and evidential requirements, and issues of summative assessment and grading. The chapter concludes with a discussion of the preparation for the assessment model's introduction into the business internship.

Chapter 7 describes the implementation of the assessment model, and reports on the findings of data collected by stakeholder group at the end of each of the two semesters of the intervention period. The findings include both quantitative and qualitative data.

Chapter 8 discusses the findings in relation to the theoretical framework adopted for the study. These discussions are framed within three sections: Stakeholder acceptability of the assessment model, validity and reliability issues, and the consequences of the assessment for learning.

Chapter 9 concludes the thesis by drawing on the discussion of the findings to outline how the research question has been addressed. A number of implications are presented in relation to assessment in cooperative education. Limitations of the thesis are discussed, as well as suggested areas for future research.

Chapter 2

Literature Review: Purpose of assessment

2.1 Chapter outline

Assessment is often discussed in the literature in relation to its implications for learning, particularly its influence on the quality of learning (Gibbs, 1999; Ramsden, 1992). In contrast, theories of learning are usually discussed in the literature with little or no reference to assessment. Similarly, the literature on assessment is often discussed in isolation from theories of learning. This is perhaps not surprising given both topics cover very broad areas. The connections that are made between assessment and learning are generally discussed in relation to educational courses delivered in on-campus, classroom-based settings. As noted in Chapter 1, much less attention has been given to assessment of learning that occurs away from the classroom, such as in cooperative education, particularly the impact of the situational and contextual factors involved and the implications these have for assessment. The approach to the literature here has therefore been to review what are considered to be the principles of ‘good assessment’ and consider how these may inform assessment practices in the context of cooperative education. In this chapter attention is given to how these principles relate to the key purposes of assessment, particularly formative and summative assessment. In Chapter 3 relevant principles are considered in relation to the core issues of validity and reliability that affect all assessment, with attention then given to authentic assessment methods and approaches that are being increasingly adopted for more complex, higher level learning, such as occurs in cooperative education. Finally, in Chapter 4 the review of the literature focuses on theories of learning of relevance to cooperative education, and how these theories add to our understanding of assessment in cooperative education.

In their book *500 Tips on Assessment*, Brown, Race and Smith (1996) conclude with a summary of value statements in the form of a 10-point ‘Assessment Manifesto’ that they suggest should underpin good assessment practices. While these values are not embedded in research, they are informed by

experienced educationalists who have reported extensively on assessment in higher education. As such, they provide a useful framework for considering assessment. It is recognised that more recent research reports and studies have added to what we might understand as contributing to good assessment, and these are considered where appropriate throughout this and subsequent chapters when reviewing the literature. These 10 value statements are summarised below with a brief indication of where these are considered further in this thesis (N.B. some statements have been grouped together):

- *The purpose of assessment should be clearly explained.* The following section (2.2) considers what is understood as the purpose of assessment. This is also addressed in Chapter 6 when discussing the implementation of a new assessment model (practice intervention);
- *Assessment should allow students to receive feedback on their learning.* This is discussed when reviewing formative assessment in Section 2.3 and is also discussed in relation to the practice intervention in Chapter 6;
- *Assessment needs to be valid and assessment instruments and processes need to be reliable and consistent.* Attention is given to the different forms of validity and reliability in Chapter 3, and the implications of these when adopting alternative assessment methods and approach. In addition, these principles are discussed in relation to the practice intervention (Chapter 6), and in the discussion of the findings (Chapter 8);
- *Assessment should accommodate individual differences in students.* This is concerned with recognising that students learn in different ways and that assessment should ensure it does not advantage or disadvantage a particular individual or group. It is also concerned with ensuring that assessment is able to accommodate and encourage creativity and originality. This issue is covered in Chapter 3 when looking at alternative assessment methods and approaches, and again in Chapter 6 when considering the contextual issues involved in the planned practice intervention. Finally, this issue features in the discussion of the findings in Chapter 8;
- *Assessment should provide staff and students with the opportunity to reflect on their practice and their learning.* This is discussed in Chapter

3 in relation to consequential validity, and in Chapter 4 when discussing theories of learning informing reflective practice. It is also a key feature of the practice intervention and its subsequent evaluation, discussed in Chapters 6 and 8 respectively;

- *Assessment should be based on an understanding of how students learn.* As mentioned earlier in this section, assessment is considered in relation to its impact on learning throughout this chapter, as well as Chapter 3. Particular attention is given to this in Chapter 4 when considering theories of learning and their implications for assessment;
- *Assessment should be an integral component of course design, and not something bolted on afterwards; The amount of assessment should be appropriate; and Assessment criteria should be understandable, explicit and public.* These last three value statements are addressed in the development of the assessment model introduced in the practice intervention outlined in Chapter 6.

This chapter is divided into four sections. Section 2.2 provides an overview of the purpose of assessment. In Section 2.3 attention is given to formative assessment, including the overlaps and tensions with summative assessment. Section 2.4 then reviews the two main frameworks for considering summative assessment: norm referencing and criterion-referencing. Attention is also given to competency and the complexities and limitations in its assessment. Finally, in Section 2.5 a summary of the chapter is provided which leads into the next component of the literature review in Chapter 3.

2.2 Purpose of assessment: An overview

Brown and Pendlebury (1992) tell us that assessment originates from the term ‘adsedere’ – to sit down besides - and is primarily concerned with providing guidance and feedback to the learner on their learning. The nature and extent of this guidance and feedback is dependent upon the purpose of the assessment. Traditionally, there are two broad purposes of assessment, which are usually categorised as being either formative or summative. The key difference between the two is summed up by Brown (1999):

While formative assessment is primarily characterised by being

continuous, involving mainly words and with the primary purpose of helping students improve, summative assessment instead tends to be the end point, largely numerical and concerned mainly with making evaluative judgements. (p. 6)

Not all formative assessment is necessarily continuous, for example, when it is informal and provided in the course of events (Yorke, 2003). Nevertheless, the basic principles and features of formative assessment generally apply to both formal and informal situations. This is discussed further in Section 2.3.

Summative assessment is primarily focused on evaluating student performance in order to provide certification of achievement, which enables subsequent judgements to be made on student progression. A summarised definition of the purpose of summative assessment is provided by Boud and Falchikov (2006):

Summative assessment enables students to graduate with a validated record of their performance in the program in which they have participated. Certification is used by employers and by educational institutions, typically to make judgements about acceptability for employment and further study. (p. 401)

Although certification is generally considered to be the end point of summative assessment, it can also be viewed as recognising student achievement at different stages of their study. For example, summative assessment usually involves on-going evaluation of student performance. Typically, this involves individual modules or papers within a formal programme of study having a number of assessment components (e.g., assignments and examinations). Evaluative professional judgements on student performance are made by academics for each assessment component (Sadler, 2005), which are then aggregated in a way that provides for certification at a module level (e.g., through the allocation of an overall grade). The combination of these graded outcomes at module level provides the basis for determining overall achievement, resulting in certification at a programme level (e.g., the award of a diploma or degree). In effect, summative assessment is both continuous and cumulative, in order to arrive at an overall judgement on student achievement.

It is the judgements made on student performance at an assessment component level that is at the core of summative assessment. According to Taras

(2009) such judgements “cannot be made within a vacuum, and therefore points of comparison (i.e. criteria and/or standards) are necessary and in constant interplay” (p. 58). The issue of criteria and standards in summative assessment is discussed in Section 2.4.

Formative assessment is largely focused on helping students to improve their learning although, like summative assessment, it also requires prior evaluative judgements to be made on their performance (Gipps, 1994). Such judgements become the basis for feedback, which must be communicated effectively if performance is to improve (Race, 1998). While evaluative judgements and feedback are also important features of summative assessment, the purposes for which they are provided usually differ. For example, Sadler (1989) considered the purpose of formative assessment is to shape and improve student competence in order to close the gap between the students’ current performance and that required by the criteria or performance standard. Although this requires making judgements about student performance, it is generally done so for the purpose of modifying teaching and learning activities (Black & Wiliam, 1998). Thus, a key distinction between formative and summative assessment is that formative assessment uses judgements for the purpose of improvement while summative assessment “stops at the judgement” (Taras, 2009, p. 58).

Summative assessment also has other purposes. For example, it is used to provide statistical information for public accountability of educational institutions and the quality of its teaching, give an estimate of students’ potential to progress to other levels or courses, and help students with option choices and selection (Brown, 1999; Carr et al., 2000).

While the intended purposes of formative and summative assessment may differ, they are nevertheless interlinked and invariably inter-dependent in educational practice (Boud, 2000). Brown (1999) sees the connections between the two “as ends of the same continuum” (p. 6), with both forms of assessment contributing to student learning. Ultimately, good assessment, whether formative or summative, should contribute to improvements in student learning and, according to Brown, involve attention to:

Description, so that tutors and students can recognise what is

under discussion, evaluation, so that value judgements can be available and meaningful to all concerned and remediation, so that improvements can be made in performance where there are errors and deficiencies. (p. 7)

Both forms of assessment should also motivate students to study, focus their sense of achievement, and encourage the tacit learning of disciplinary skills and conventions (Brown, 1999; Dunn, Morgan, O'Reilly, & Parry, 2003). They can also serve to consolidate student learning and help students to apply abstract principles to practical contexts (Brown, 1999; Brown & Knight, 1994). In addition, formative and summative assessment can also give feedback to teachers about the effectiveness of their teaching and curriculum planning (Brown, 1999; Carr et al., 2000). Differences and overlaps between formative assessment and summative assessment are discussed in more detail in Section 2.3.

A further purpose of assessment, originally expressed by Rowntree (1987) in his influential book *Assessing students: How shall we know them?*, is that it needs to prepare students for life. This is based on the view that learning is not something that only occurs during formal education, but is something that occurs throughout life. Given the influence of assessment on learning, Rowntree argued that assessment should help students to understand their own learning by providing feedback to themselves and “be weaned off dependence on others for knowledge of how well he [or she] is doing” (p. 27). The importance of learning beyond the domain of formal education led to the notion of lifelong learning, which the Higher Education and Research Office (2009) state as being:

A term used to broadly describe the learning in which a person engages throughout life, whether it be through formal educational programmes ... or through informal learning by other routes. (p. 1)

The value of lifelong learning for employment, the broader economy and life in general, and the subsequent implications of this for higher education, was noted in a number of influential reports in the mid-1990s (Dearing, 1997; Kennedy, 1997; The Fryer Report, 1997). This increased attention to lifelong learning resulted in a greater focus being placed on the broader capabilities required of graduates beyond university, such as those described by Stephenson and Yorke (1998). This change in perspective on the type of skills and capabilities required of graduates for lifelong learning was influential in a move

away from the predominant teacher-directed approaches to learning, and a greater emphasis being placed on student-centred learning (Hasan, 1999). While student-centred learning has seen increased student involvement and participation in learning activities, it has not led to a similar change in curricula and assessment practices that may contribute to the desirable graduate outcomes necessary for lifelong learning (Taras, 2002). Given the important influence of assessment on learning, Taras suggests that, “it is becoming doubtful whether we are actually producing confident, independent and autonomous learners or worse still, whether these qualities are actually being undermined in learners during their time at university” (p. 502). Boud and Falchikov (2006) argue that a key constraint is that assessment practices are usually framed within the immediacy of current learning related to the curricula, which ignores “the place of assessment in learning beyond the academy and the contribution higher education can make to it” (p. 400). Boud and Falchikov consider that equal attention needs to be given to this “alongside the well-established purposes of assessment for certification and assessment to aid current learning” (p. 400).

Boud and Falchikov (2006) refer to earlier work of Boud (2000, p. 151) who developed the notion of sustainable assessment, which Boud defines as “assessment that meets the needs of the present without compromising the ability of students to meet their future learning needs”, going on to say that such practices should encompass “the knowledge, skills, and predispositions required to underpin lifelong learning”. He suggests that an inhibitor to sustainable assessment is the nature of summative assessment itself:

Ironically, summative assessment drives out learning at the same time it seeks to measure it. It does this by taking responsibility for judgements about learning away from the only person who can learn (the student) and placing it unilaterally in the hands of others. It gives the message that assessment is not an act of the learner, but an act performed on the learner. (p. 156)

To address this, Boud (2000) argues that “a significant shift of balance is required in order to equip students to be lifelong assessors” (p. 156). But it is not only summative assessment that potentially impedes sustainable assessment practices. Boud and Falchikov (2005) highlight that, like summative assessment, formative assessment “is time-limited and focused on immediate learning

outcomes” (p. 35).

While the focus of this thesis is on summative assessment in the context of an internship course, the nature of learning generally, and cooperative education specifically, means that this cannot be examined in isolation to formative assessment and sustainable assessment. For this reason, these aspects of assessment and their intended benefits to learning are important factors considered throughout this and subsequent chapters when discussing summative assessment. In the next section particular attention is given to formative assessment and its relationship with summative assessment and sustainable assessment, and the influence this has on learning.

2.3 Formative assessment

2.3.1 The influence of formative assessment on learning

In their literature review of the effects of curricula and assessment on pedagogical approaches and on educational outcomes, Carr et al. (2000) concluded that “there is a positive relationship between increased formative assessment and increased learning outcomes” (p. 60). In contrast, summative assessment, while influencing learning through summing up a student’s achievement, referred to by Biggs (1996) as a ‘backwash’ effect, is considered to be a passive activity that usually does not have an immediate impact on learning (Sadler, 1989). Sadler notes that this is based on “the common but puzzling observation that even when teachers give students valid and reliable judgements about their work, improvement does not necessarily follow” (p. 119).

In their literature review of formative assessment Black and Wiliam (1998) provided a broad and synthesised definition of formative assessment as “encompassing all those activities undertaken by teachers, and/or by their students, which provide information to be used as feedback to modify teaching and learning activities in which they are engaged” (p. 7). As indicated earlier, the main purpose of providing feedback to modify learning activities is to shape and improve student competence (Gipps, 1994; Sadler, 1989). It therefore follows that to improve student competence the feedback will need to be drawn from an evaluation of student performance. In order to evaluate performance, one has to

be clear about what is being measured and how. The important interconnection between measurement and learning is described succinctly by Mehrens and Lehmann (1991) as follows:

Measurement is the hand maiden of instruction. Without measurement, there cannot be evaluation. Without evaluation, there cannot be feedback. Without feedback, there cannot be good knowledge of results. Without knowledge of results, there cannot be systematic improvement in learning. (p. 4)

These interconnections are now briefly explored. What might be understood as measurement is dependent upon the type of assessment framework employed. There are two common types of assessment used in education; norm-referenced assessment and criterion-referenced assessment. The former is concerned with measuring student performance in relation to other students, while criterion-referenced assessment measures students' performance in relation to a domain, criteria or standard (Mehrens & Lehmann, 1991). These types of assessment are explored in more detail in Section 2.4 in relation to summative assessment. Given norm-referenced assessment is not formative in nature and is considered to be inappropriate in cooperative education programmes (Hodges, Smith & Jones, 2004), measurement is briefly considered here in relation to criterion-referencing.

Harlen and James (1997) argue that "it is not necessary, and indeed it is not helpful, to be concerned with strict criterion-referencing in formative assessment" (p. 366). This is perhaps because criterion-referenced assessment is normally associated with summative assessment, which according to Black (1995), focuses more on uniform standards and reliability rather than students' formative development. As Yorke (2003) notes "reliability is less important in formative assessment because the fundamental purpose of the activity is developmental rather than related to measurement" (p. 485). Harlen and James (1997) consider that while formative assessment employs a form of criterion-referencing, it is also pupil-referenced (or ipsative). This means that judgements made on performance and progress must also take into account contextual factors affecting the individual student, such as the particular work being done, the effort put in, and the progress made over a period of time. The authors suggest that judgements must balance the two components in order to provide a diagnostic assessment:

In consequence, the judgement of a piece of work, and what is fed back to the pupil, will depend on the pupil and not just on the relevance of the criteria ... This hybrid of criterion-referenced and ipsative assessment does not matter as long as this information is used diagnostically in relation to each pupil. (p. 370)

A further aspect of diagnostic assessment, in relation to cooperative education, is the importance of sustainable assessment and the need to focus on students' development as lifelong assessors of their own work (Boud, 2000). It has been argued that competent learners are those who are able to self-monitor their work (Boud, 1995a; Falchikov, 2005; Gipps, 1994), which is a pre-requisite for self-regulation (Sadler, 1989). Intelligent self-regulation requires students to be competent learners who are able to measure and evaluate their own performance and progress towards their goals or objectives (Brookhart, 2001; Nicol & McFarlane-Dick, 2006; Sadler, 1998). Sadler (1989) considers that this enables learners to close the gap between the actual level of performance and the reference level (identified by the standards), which in turn enables them "to judge the quality of what they are producing and be able to regulate what they are doing during the doing of it" (p. 121). The interrelationship between self monitoring, evaluation and understanding of the criteria and standards employed, suggests that for formative assessment to be effective the student needs to be an active participant in the process.

A further aspect of self-regulation is the need for students to initiate and respond to feedback. Nicol and McFarlane-Dick (2006) consider feedback as "information about how the student's present state (of learning and performance) relates to [the intended] goals and standards" (p. 200). They identify two types of feedback: student-generated internal feedback; and external feedback. Students generate internal feedback "as they monitor their engagement with learning activities and tasks, and assess progress towards their goals" (p. 200). External feedback relates to feedback received from others (teachers or workplace hosts). External feedback will only lead to the modification or improvement of performance if the feedback given is effective. When reviewing different definitions of formative assessment, Carr et al. (2000) identified a common view that assessment should only be considered to be formative when action is taken that is intended to improve student learning. Such action will necessitate the

provision of feedback. A number of studies have documented the high value that students place on external feedback for their learning (Higgins, Hartley, & Skelton, 2001; Hounsell, McCune, Hounsell, & Litjens, 2008). Jacobs, Briggs and Whitney (1975) identified two aspects of external feedback to students – informational (i.e., to enable recipients to modify, adapt and improve their work) and hedonic (influencing motivational factors in the recipient). Jacobs et al. suggest that feedback is best given by ensuring that positive feedback precedes any negative feedback. Race (1998) expanded on this when identifying five components of effective communication of (external) feedback, which needs to be:

- Timely (as soon as possible after the event);
- Individual (relevant to each student's achievement, nature and personality);
- Empowering (provides positive reinforcement, does not dampen enthusiasm);
- Oriented to opening doors, not closing them (avoid language which is too general and not meaningful, e.g., weak, excellent; be precise with what we are saying so as to aid learning and development); and
- Manageable (recognizing resource constraints of those giving it and avoiding 'too much' information for students).

While effective communication of external feedback may contribute to students' receptivity to learn and may subsequently modify or improve their work, effective feedback is also reliant on students' understanding of the feedback in relation to the assessment task, as Taras (2002) highlights, "it does not count as formative feedback unless the student has understood what the purpose of the assessment was, how it was assessed or judged, and how they can use their shortfalls in the future" (p. 506). Even if students do understand the feedback, assessment cannot be stated as being formative until it is evident that action has been taken and learning has been subsequently demonstrated (Harlen & James, 1997; Taras, 2002). Therefore the impact of assessment on learning must also consider its consequential validity (Linn, 1993). This is discussed further in Chapter 3. While the impact on immediate learning may be apparent and therefore viewed as being formative, a further issue to consider is the longer term consequences of the assessment. Boud and Falchikov (2006) argue that

“assessment activities should not only address the immediate needs of certification or feedback to students on their current learning, but also contribute in some way to their prospective learning” (p. 400). When graduates leave the confines of a formal education environment they will need to be equipped to make their own judgements about themselves, their performance and their learning, in a world described by Barnett (1999) as one involving ‘supercomplexities’ in which knowledge of what is required in a job is frequently changing. In such a world, workers will need “the capability to learn and change as a result of experience and reflection” (Duke, 2002, p. 28). Boud and Falchikov (2006) sum up the implications of preparing students for lifelong learning in an uncertain world:

Preparing students for lifelong learning necessarily involves preparing them for the tasks of making complex judgements about their own work and that of others and for making decisions in the uncertain and unpredictable circumstances in which they will find themselves in the future. (p. 402)

A further issue to consider in cooperative education is the nature of the formative assessment. It was stated in the previous section that formative assessment can be viewed as being formal or informal. Yorke (2003, p. 478) defines formal, formative assessments as “those that take place with reference to a specific curricular assessment framework. They involve activities required of the student (i.e., to do the work) and of the assessor (to assess the work and provide feedback from which the student can learn)”. In addition, Yorke says that formal, formative assessments “are typically – but not exclusively – undertaken by academic staff or by supervisors of placement activity within a collaborating organisation” (p. 478). In contrast informal, formative assessments are viewed as those “that take place in the course of events, but which are not specifically stipulated in the curriculum design. These include instantaneous feedback as the student takes part in a learning activity” (p. 479). One could add that in the context of cooperative education, informal, formative assessment will take place during the daily work tasks undertaken by the student. This may occur from the external feedback given by work peers or managers or by the internal feedback of the student following observation of the performance of others and relating this to their own performance.

In summary, formative assessment is concerned with evaluating student learning and performance for the purpose of improvement of learning.

Improvement requires appropriate action to be taken to modify the student's (or the teacher's) performance and actions. Effective evaluation necessitates measuring performance against relevant criteria or standards. The nature of formative assessment, particularly when it is informal, means that judgements made must balance strict interpretation of the criteria or standards against the contextual factors of the work affecting the student. Essentially, the emphasis of evaluation in formative assessment should be on student development, rather than reliability of the criteria. Feedback should be both internal (self-generating) and external. External feedback needs to be communicated in a way that maximises students' receptivity and contextual understanding. If students are to develop as self-regulating professionals in their chosen career, they must also be encouraged to generate their own internal feedback. Finally, consequences of formative assessment for learning must also be considered. This relates to whether it leads to improvement in performance and learning at the time, and whether it also contributes to preparing students for making their own judgements about their own work or that of others in the future.

2.3.2 Overlap and conflict between formative assessment and summative assessment

Taras (2002) asserts that: "formative assessment, and therefore feedback, is essential both for judging work (either by tutors or students) and for permitting learning to become a logical outcome" (p. 504). Yet despite the importance of formative assessment to learning, paradoxically it is becoming increasingly marginalised in higher education, as noted by Wiliam (2000): "Educational assessment has thus become divorced from learning, and the huge contribution that assessment can make to learning has been largely lost" (p. 19). Hounsell et al. (2008) point out that despite these concerns the "decline in the provision of guidance and feedback on assessed work in higher education" has continued (p. 55). There are a number of reasons offered for the decline in the use of formative assessment. For example, there is increasing public and societal pressure on higher education to be more accountable, forcing greater and disproportional attention to summative achievements of students (Alexander, 2000; Boud, 2000; Boud & Falchikov, 2005; Burke, 2005). Further pressure has come from the modularisation and 'semesterisation' of the curricula which has resulted in a

reduced timeframe for completing summative assessment tasks, leaving little time for the tutor to engage in formative assessment (Yorke, 2003) or to give feedback on summative work (Taras, 2001, 2002). A further reason for the decline in feedback offered by Hounsell (2003) is the increase in class sizes and a decrease in resources, reducing the capacity of the teacher to give such feedback. Furthermore, Taras (2001, 2002) considers that this emphasis on 'high-stakes' summative assessment, which is sometimes dominated by tests and examinations, has led to students being excluded from those assessment approaches, such as peer- and self-assessment, that could have greater benefit for their learning, particularly in developing greater autonomy and independence.

More recently, there has been a move away from sole reliance on tests and examinations by inclusion of more in-course assignments that contribute to 'continuous assessment', which Race (1999) defines as "the on-going measurement of work that students do throughout a course rather than at fixed end-points" (p. 64). Yorke (2003) notes that continuous assessment is often designed to be both formative and summative. As stated earlier, it is formative when students get feedback on the work as it is progressing which is intended to increase their learning, and it is summative when the work is marked which subsequently contributes to the overall course mark or grade. Use of such an integrated approach has been criticised as potentially leading teachers to confuse the distinctive purposes of formative and summative assessment, by focusing their attention on 'teaching to the test' with formative assessment being subsumed into summative assessment, with little emphasis on guidance and feedback (Black & Wiliam, 2003; Carr et al., 2001; Harlen & James, 1997). A further issue noted by Taras (2002) is that students are better able to assimilate feedback and make their own judgements on performance when the summative mark or grade is not given back with their work. She concludes that: "For assessment to be formative, assessment and feedback should initially be separate from grading. Students need to be allowed to develop their own judgements before being presented with grades from other assessors" (p. 508). However, of note is that even when formative assessment is separated from summative assessment it has been criticised as contributing little to student learning (Hounsell, 2003; Yorke, 2003). Sadler (1989) provides a possible explanation for this arguing that continuous forms of summative assessment, where scores of individual pieces of work are

accumulated to produce a summative mark or grade at the end, produces in students “the mindset that if a piece of work does not contribute towards the total, it is not worth doing” (p. 126).

Yorke (2003) cites Torrance and Pryor’s (1998, 2001) work in distinguishing between two different types of continuous assessment; convergent assessment and divergent assessment. The former tests whether students can fulfil pre-specified objectives and the latter tests students’ ability to succeed in more open-ended tasks in order to identify what the student knows and can do. Yorke argues that if “a key purpose of higher education is to facilitate the autonomy of learners in a world of lifelong learning”, then continuous assessment practices, whether formative or summative, “must contain a significant proportion of divergence” (Yorke, 2003, p. 480). While a significant proportion of divergent assessment may contribute to the autonomy of learners, it is not a sufficient guarantee in itself that it will be achieved. Race (1999) cautions that continuous assessment often suffers from poor quality feedback that is neither timely nor clear. Furthermore, students are often not fully aware of, or engaged with, the criteria that will be used to judge their work. In these situations, continuous summative assessment is unlikely to facilitate autonomy in learners.

It has been reported that the tensions between formative assessment and summative assessment need to be resolved to ensure the focus on learning is not diminished (Black, 2003; Brookhart, 2001). In his review of assessment in teacher practicums, Stones (1994) argues that such tensions cannot be overcome and suggests that assessment should be formative only. However, while Stones provides a strong case for such an approach, in practice this may be difficult to achieve given contextual factors may well work against this, particularly pressures on institutions to ensure accountability. Given the decline in formative assessment, guidance and feedback to students on their learning is increasingly dependent upon its inclusion in, or attachment to, summative assessment. Taras (2007) does not see this as being problematic, arguing that summative assessment needs to precede, rather than follow, formative assessment: “Logically, it is difficult to see how improvements can be proffered without an implicit or explicit [summative] judgement of quality having been made” (p. 367). Taras (2009) also suggests that the tendency to separate formative and summative assessment

“creates a false dichotomy” (p. 66). This is because in practice most feedback in higher education “is normally obtained from summative assessment and graded work ... [and to ignore this] higher education risks losing the most powerful and central learning support tool it has” (Taras, 2009, p. 66).

In their study of the impact of guidance and feedback on the summative assessment of a first-year and final-year degree course, Hounsell et al. (2008) highlight six key components that students identified as contributing to successful performance. These components are offered by the authors as a six step diagnostic and analytical tool, ending with a ‘feed forward’ that will assist students “in the achievement of high quality learning outcomes” (p. 64). These six steps are briefly outlined here.

In the first step attention needs to be given to students’ prior experiences of assessments. The teacher needs to know the extent of students’ prior experiences with the assessment method to be employed. If the assessment method (e.g., examination, essay, oral presentation) is new to the students, then sufficient time will need to be set aside to orient the students to its nature. This will also impact on the second step, which is concerned with ensuring sufficient guidance is given on the expectations and requirements of the assessment. This may include providing: examples and good practice exemplars; clear and sufficient guidelines, and; opportunities to gain practice on unfamiliar tasks. The third step involves on-going clarification of expectations. As students become engaged in the assessment task, they will have some uncertainties of what is required and expected of them. Attention needs to be given to ensuring students understand what further information they can request. This also relates to when and how they seek such clarifications. Furthermore, staff need to be aware that some students may lack confidence to seek help, and they should therefore ensure attention is not just given to those that seek it. The fourth step involves the provision of on-going feedback on the students’ performance and achievement. For example, if the summative assessment involves an oral presentation, then students need time to practice giving presentations and get feedback on their performance. In other words, the summative assessment task needs to be integrated with formative assessment tasks. In the fifth step, students should be able to get ‘supplementary support’, should they want it, in the form of feedback

on their marked assessment. While accepting that the grade can interfere with the feedback, students nevertheless still want to know why they received the mark they did and what they would need to do to get a higher mark. Without this information students have little with which they can use in the final step, referred to as 'feed forward'. This final step represents the 'closing' of the guidance and feedback loop. This enables the student to understand what he or she has learned which will assist them in the future when undertaking a similar assessment activity.

If summative assessment is to incorporate formative features, particularly in providing guidance and feedback, first attention will need to be given to the potential conflict when the teacher attempts to be both the (summative) assessor and the (formative) supervisor/mentor. Formative interactions with students in a mentoring/support capacity can provide the potential for tension if students believe the information could be used for summative purposes (Bell & Cowie, 2001). In cooperative education programmes there is the possibility for teachers to take on dual roles of (formative) mentors and (summative) assessors. Thus the potential for conflict between the two roles is high, with resulting negative consequences for student learning. Second, attention needs to be given to how judgements are made on student performance. It was stated earlier that if assessment, whether formative or summative, is to facilitate the autonomy of learners, then increased divergence is needed. While a common approach to this is to have different forms of continuous assessment, such practices need to ensure that students fully understand what it is they are expected to do and how their performance will be judged. This requires students to have a clear understanding of the criteria and standards that are to be employed so that they can monitor their work effectively. In the context of cooperative education, it is likely that student performance in relation to their work objectives or goals will be a key component of formative and summative assessment practices. It is also likely that the reference level of performance (or employer standards) is likely to be different in each workplace and for each set of activities and responsibilities undertaken. While these standards may not be overtly apparent, they will be embedded in the day-to-day activities that occur within a particular organisation (Hodges, 2006), determined by the tacit knowledge and collective experiences of staff. Sadler (2005) tells us that tacit knowledge will "commonly exist in unarticulated form

but can be shared among experts, or transmitted from expert to novice” (p. 192). It follows that employees (and therefore co-op students) will need to “identify whether they have met whatever standards are appropriate for the task in hand and seek forms of feedback from their environment (from peers, other practitioners, from any written and other sources) to enable them to undertake related learning more effectively” (Boud, 2000, p. 152).

In summary, there is a decline in the use of formative assessment in higher education. This decline has been caused by a number of factors, including: external pressures on education providers to pay greater attention to summative achievements; modularisation and ‘semesterisation’ of the curricula; and a decrease in teaching resources. Increasing use of continuous summative assessment has often led to less attention being given to guidance and feedback, key components of formative assessment, which serves to enhance learning. Even when feedback is given, students may be less receptive to this as their attention is increasingly focused on the summative grade or mark. While more divergent or alternative forms of assessment are now being used, their utility for enhancing the autonomy of learners is dependent upon students’ understanding of and engagement with the performance standards and criteria. In relation to cooperative education, attention needs to be given to the potential conflict between academics being both formative mentors and summative assessors. Despite these problems new forms of summative assessment, supported by appropriate pedagogical practices, provide encouragement that the formative-summative tensions can be overcome. The diagnostic and analytical tool developed by Hounsell et al. (2008) provides one example of this. Alternative assessment methods and approaches are considered further in Chapter 3.

2.4 Summative assessment frameworks

There are two distinct types of, or frameworks for viewing, summative assessment; norm-referenced and criterion-referenced. Sadler (2005) says that different terminology is used when describing these two terms in higher education, not only internationally, but also within individual countries and even within individual institutions. For example, norm-referenced assessment is sometimes referred to as normative assessment, norm-based assessment, or norm-

referencing. While criterion-referenced assessment may also be referred to as criteria-based assessment or criterion-referencing. A further term used for criterion-referenced assessment by the New Zealand Qualifications Authority is standards-based assessment (Peddie, 1997). When distinguishing these types of assessment, this thesis will use the terms norm-referenced or norm-referencing, and criterion-referenced or criterion-referencing.

As outlined earlier in this chapter, norm-referencing involves interpreting a (performance) score of an individual by comparing it with those of other individuals, whereas criterion-referencing involves judging an individual's performance by comparing it to some specified behavioural domain, standard or criterion (Mehrens & Lehmann, 1991). While both methods are linked to learning, there are important differences between the two, particularly in relation to their purposes, and the subsequent impact they have on learning. Given the increasing use of criterion-referencing in higher education (Sadler, 2005) and its widespread use in work-based learning (Brown & Knight, 1994), particular attention will be given to this method of assessment. As competency is a key component of criterion-referenced assessment, attention will be given to the terminology surrounding this in the literature, including its apparent ambiguity and divergence of meaning, and its relevance to workplace performance. Finally, the complexities and limitations of assessing competency within a criterion-referenced framework will be outlined.

2.4.1 Norm-referencing

Norm-referencing is a way of measuring student performance relative to other students and can be traced back to the Han Dynasty, China in the 4th century BC. Biggs (2003) refers to Zeng's account of students who were required to master a huge classical curriculum in order to become officials. Only so many officials were required, thus the best were selected on the basis of their intelligence, character and determination. This approach to selection, based on the relative merits of the individual compared to others, is the key principal that underpins norm-referenced assessment.

Norm-referenced assessment as we know it today has its roots in the socio-

political influences of early nineteenth century industrial society. At this time there was a need to regulate and legitimise the division of labour as a form of social control (Broadfoot, 1996). There was also an increasing demand for an educated labour force in the growing state bureaucracies of the wealthy industrialised nations of northern Europe. This required selectivity (and later a need for acknowledgement through certification), and norm-referencing provided a 'scientific' approach for this (Eckstein & Noah, 1993). As the industrialised states developed and economies grew, there was a corresponding growth in demand for educated workers in the professions and in a range of managerial positions in the burgeoning industrial organisations. Examinations (a key tool employed in norm-referencing) provided a mechanism for selecting suitable candidates for training and later for certifying competence (Gipps, 1999). Later they also served to limit access to the professions (Broadfoot, 1979), and provide a useful way of allocating scarce resources in higher education (Eckstein & Noah, 1993).

Norm-referencing is characterised by the production of pre-determined norms of attainment and the subsequent employment of a mechanism to ensure overall student performance conforms to these norms. Typically, this is achieved through "standardised tests, where raw scores are converted into grades that are distributed normally and with a known standard deviation" (Knight, 2000, p. 242). With its high levels of prediction and correlation, norm-referencing provides a functional and reliable measuring device for ranking and comparing students by providing a good spread of marks within a bell curve distribution (Taylor, 1994), for the purpose of comparison and selection (Glaser, 1963; Glaser & Silver, 1994).

The development of norm-referencing as a scientific measurement model was influenced by the science of psychometrics and the related assumptions on the nature of intelligence (Gipps, 1994). Such assumptions were based on the underlying notion "that intelligence was innate and fixed in the way that other inherited characteristics such as skin colour are" (p. 5). This assumption of intelligence being fixed underpinned selection processes in Western education systems until the mid-twentieth century. A number of studies in the 1940s suggested that not only was intelligence, or IQ, not fixed throughout a person's

lifetime, but that it was influenced by and related to the social environment (Husen & Tuijnman, 1991). Furthermore, school examinations, based on IQ, were criticised for favouring children from middle class backgrounds who could benefit from parental coaching, thus challenging the inherent assumption that this form of testing is equitable and a fair way of measuring the most able and talented children (Yates, Pidgeon & Rudd, 1958).

Throughout most of the twentieth century norm-referencing was the main form of assessment used in post primary education sectors in most OECD countries. In the early 1990s, the introduction of competence-based assessment, which is a form of criterion-referenced assessment, marked a significant change of direction in both the school and post-school sectors. In New Zealand, as in other countries, this change occurred because of a rejection of the prevailing norm-referencing approach. This was based on growing criticism of the educational value of norm-referencing. For example, Gipps (1994) pointed out that norm-referenced assessment creates exclusivity and exclusion, winners and losers, and therefore has an educationally limiting view on student ability and growth. She also argued that it is also inherently unfair in that “students cannot control the performance of other students [therefore] they cannot control their own grades” (p. 5). Furthermore, it ignores that in being selected for higher education students have already demonstrated that they are high achievers and, as such, are not randomly selected - therefore cannot expect a normative distribution of ability (an underlying assumption of norm-referencing). White (1992) argued that norm-referencing, with an emphasis on the recalling of facts in tests and exams, and a disregard for underlying principles, inevitably lead to ‘shallow learning’. In his review of a number of research studies conducted in Australia, the UK and Hong Kong, Biggs (1994) observed that assessment practices in most undergraduate programmes appeared to encourage shallow, surface-oriented learning, and indicating that the prevailing practice was one of norm-referencing. Biggs concluded that undergraduate students, attuned to a norm-referencing culture, become ‘institutionalised learners’, most of whom do “not acquire the understanding that changes perspectives and drives enlightened performance” (p. 36). More recently, norm-referenced assessment has been criticised for its lack of attention to learner outcomes as it “does not actually say what a student understands and can do” (Knight, 2000, p. 243), nor does it “tell us a great deal

about what each student has learned and how he or she may improve performance” (Hodges et al., 2004, p. 50).

The perceived limitations and rejection of norm-referencing led to changes in the school sector, and also in the way vocational education and training (VET) courses were controlled and managed. Typically, in the early 1990s there was a move away from individual educational providers determining and managing their own VET courses through the creation of national qualifications controlled by national authorities (Cuddy & Leney, 2005; Newton, 1993). These qualifications were and remain strongly influenced by relevant industry bodies. The main reason for this change was to increase participation in vocational education and training, remove barriers to access, create national standards, and enable greater portability of qualifications (Newton, 1993). These national standards were often managed through ‘qualification frameworks’. For example: in Australia, the Ministerial Council of Education, Employment, Training and Youth Affairs (MCEETYA) (2008) oversees the Australian Qualifications Framework; in the United Kingdom, the Qualifications and Curriculum Development Agency oversees the national vocational qualifications (NVQs) which operate within a National Qualifications Framework (QCDA, 2008); and in New Zealand, the New Zealand Qualifications Authority oversees the National Qualifications Framework (NQF) (NZQA, 2007). A key aspect of ensuring consistent standards in these national qualifications was through the introduction of competency-based assessment (Newton, 1993; Robinson, 2000). While the approaches to criterion-referenced or competency-based assessment, and the related terminology used, vary to some extent in different countries, typically these VET qualifications will be made up of units (or modules) of learning, with each unit specifying: the learning outcomes expected; the performance criteria (usually expressed in a way that specifies the evidence required to meet the outcomes or standard required); and the range of situations or circumstances in which the performance might be considered (Cuddy & Leney, 2005; NZQA, 2007).

Acceptance of criterion-referencing as an improved form of assessment was also recognised in higher education. However, despite the educational improvements associated with criterion-referenced assessment, norm-referencing still remains a dominant feature of higher education assessment practices

throughout the world (Barrow, 2003; Boud & Falchikov, 2006). Biggs (2003) suggests that the reason universities persist with norm-referencing at undergraduate level, in spite of its perceived educational limitations, is in order to assist selectivity for postgraduate study. Boud and Falchikov (2006) also suggest that its continued dominance in higher education has occurred “not through policy, which increasingly advocates something different, but through the lived experiences of students and teachers” (p. 411). In the context of cooperative education, norm-referencing does not fit easily with the participatory nature of workplace learning, and the potential transformation in the value and attitude to learning this can bring (Eames, 2003).

2.4.2 Criterion-referencing

Today’s post-industrial world has become synonymous with the term *knowledge society*. The knowledge society requires individuals who ‘know how and why’ rather than ‘know what’ – the latter typically being the main requirement of individuals in the industrial age in which technical knowledge, based on innate ‘intelligence’, was the key focus. Today, knowledge workers see themselves as professionals, rather than employees, and have *knowledge assets* which Burton-Jones (2003) views as their competencies, skills, relationship abilities and expertise. According to Barnett (2000), the knowledge society operates in a world of *supercomplexity*, characterised by rapid changes in technology, open and instant access to information, global outsourcing of labour, and increasing international competition in goods and services. This suggests that the post-industrial world will require knowledge workers to acquire and maintain a broad range of competencies in order to remain as active participants in the workforce. Such competencies need to support and be derived from on-going, lifelong learning. Gipps (1994) contends that this creates a need for flexible and adaptive learners, schooled in an education system that encourages “deep learning, higher order thinking and self-monitoring” (p. 26). Gipps considers that criterion-referencing can help facilitate such development.

Wood (1986) observed that criterion-referenced assessment was originally conceived by Glaser in his seminal paper on the topic in 1963. Glaser outlined an educational view of assessment and measurement, in contrast to the prevailing

norm of psychometrics, with its emphasis on test theory in selection and prediction. With criterion-referencing the emphasis is on the learner in relation to himself (or herself), rather than in relation to others. Originally, criterion-referenced assessment was associated with more traditional forms of education where the criteria are defined by (or referenced to) the technical and cognitive aspects of the curricula, written as learning objectives, which was largely assessed through written tests (Wolf, 1995). Popham (1978) refers to the learning objective as the 'domain' or knowledge base and considers assessment of student performance as 'domain referencing'. The focus on the individual learner saw the more technical aspects of the knowledge or domain extended, with learning outcomes being specified in relation to the application of knowledge and the learner's performance in an actual role in society (Grant et al., 1979). In turn, this saw greater attention paid to the attributes or competencies required of graduates when entering professional practice, such as those described by Gonczi (1994) and Hager and Gonczi (1996). More recently, attention has been given to those attributes that will equip graduates for lifelong learning, such as those outlined by Hager and Holland (2006). Of particular relevance to cooperative education is the need to ensure learning and related assessment recognises the more generic competencies or 'soft skills' that are considered to be important to employers (Coll, Zegwaard, & Hodges, 2002; Hodges & Burchell, 2003). These broader competencies or capabilities required of graduates are discussed further in Section 2.4.3.

Criterion-referencing has sometimes been associated with Biggs' (2003) notion of constructive alignment. Where these terms differ is that constructive alignment refers to the alignment between learning objectives (or outcomes), teaching and learning activities, and the assessment tasks employed (Biggs, 2003); whereas criterion-referencing focuses solely on the integration between intended learning outcomes and assessment. The importance of aligning learning outcomes and assessment is advocated by Keating (2006). This is achieved through the evaluation of student performance against pre-determined learning objectives, or learning outcomes, and which employs related, evidential assessment mechanisms (Wolf, 1995). Such evaluations involve professional judgements being made that result in the allocation of marks or grades (Sadler, 2005). In his review of the international literature in this area, Sadler identified two common reasons or

underpinning ideals used by educational institutions for adopting a criterion-referenced approach to grading students' work:

Students deserve to be graded on the basis of the quality of their work alone, uncontaminated by reference to how other students in the course perform on the same or equivalent tasks, and without regard to each student's previous level of performance ... Students [also] deserve to know the criteria by which judgements will be made about the quality of their work. (p. 178)

As noted in Wolf's (1995) definition, the learning objectives or outcomes should determine what the students are to be evaluated against and the students' performance is matched against these to determine the grades awarded. Hussey and Smith (2008) say that learning outcomes can be viewed in different ways: as relating to the individual teaching session or event; as specified for the whole module or paper; or as specified for the whole degree programme. Similarly, assessment grading can be viewed in different ways, as Sadler (2005) notes: "Grading refers to the evaluation of student achievement ... either for a single major piece of work or for an entire course, subject, unit or module within a degree program" (p. 177). Unless specified otherwise, learning outcomes is used in this thesis at the module- or paper-level, and the term grades or grading will be used to refer to the evaluative (marking) outcome of individual pieces of work submitted for summative assessment purposes or of the whole module or paper.

When 'criterion-referencing' is discussed in the literature it is often done so by using the terms 'criteria' and 'standards' interchangeably. But as Sadler (2005) points out these terms mean different things. He views criteria as "attributes or rules that are useful as levers for making judgements ... it is practically impossible to explain a particular judgement, once it has been made, without referring to criteria" (p. 179). Whereas standards are viewed as "a definite level of excellence or attainment, or a definite degree of any quality viewed as a prescribed object of endeavour or as the recognized measure of what is adequate for some purpose, so established by authority, custom, or consensus" (p. 189). An example to explain these differences is given through the outline of the increasingly common approach to criterion-referenced assessment in higher education of using qualitative criteria, which he defines as "the qualitative properties that the assessor intends to take into account in making a judgement

about the quality of student responses to each assessment task [within a module or paper]” (p. 184). These criteria can then be specified at different levels of achievement or standards, for example, “poor, acceptable, good, excellent or expanded into verbal statements that indicate different degrees on each criterion” (p. 184). This explanation of criterion-referenced assessment, with the notion of different levels of achievement, is sometimes referred to as achievement-based assessment, as opposed to competence-based assessment. The key distinction between the two is that the former considers student competence to be a relative term on a continuum of achievement, resulting in the award of different grades, while the latter sees competence in more absolute terms and focuses on determining whether the student is competent or not, the grade outcome usually being either a pass or a fail (Peddie, 1992). There appears to be a number of benefits in adopting an achievement-based approach to criterion-referencing. Sadler (2005) considers that when an (achievement-based) matrix of criteria and standards is used it can have “considerable diagnostic value for the learner” (p. 184). Having different levels of performance through the allocation of different grades is also a motivational factor for students and teachers (Curtis, 2004; Hager, Gonczi, & Athernasou, 1994), although as Williams and Bateman (2003) point out, this may also serve to have the opposite effect on lower ability students, with resulting negative consequences. Johnson (2008) also provides a cautionary note arguing that “the meaning of different grade thresholds might be less transparent than that between competent/not competent if there is a lack of understanding about the differences between grades” (p. 180).

A further aspect of criterion-referenced assessment, whether it is competence-based or achievement-based, is that it is focused on measuring and evaluating learning outcomes. Wolf (1995) explains the relationship between criterion-referenced assessment, that is competence-based, and the intended outcomes:

Competence-based assessment is a form of assessment that is derived from the specification of a set of outcomes; that so clearly states both the outcomes - general and specific - that assessors, students and interested third parties can all make reasonably objective judgements with respect to student achievement or non-achievement of these outcomes; and that certifies student progress on the basis of demonstrated achievement of these outcomes. (p. 1)

Wolf's explanation tells us that competence-based assessment is intrinsically linked to the learning process through specifying, and subsequently measuring the achievement of, learning outcomes. Learning outcomes written at a module (or course/paper) level will include both the domain content and the level of understanding applied to that content (Black, 1995). When continuous forms of summative assessment are used, the module learning outcomes must be articulated through the criteria and standards employed for each assessment task (e.g., for an essay, an oral presentation, or a case study analysis).

2.4.3 Competency terminology

As noted earlier, criterion-referenced assessment views competence either in absolute terms, with a simple pass/fail outcome, or in relative terms as points on a scale of achievement, with a graded outcome (e.g., A, B, C, D). But the term competence is viewed in different ways in the literature. Manley and Garbett (2000) view competence (plural, competences) as a description of an action, behaviour or outcome that is demonstrated by a person in their performance. In contrast, according to other authors, competency (plural, competencies) relates to the underlying personal qualities and characteristics that are causally linked to performance (Boyatzis, 1982; Spencer & Spencer, 1993). These personal qualities and characteristics, or competencies, include a person's knowledge, skills, and attitudes (Birkett, 1993), the effective combination of which will lead to the demonstration of competence (Bowden & Masters, 1993; Hager & Beckett, 1995; McMullan et al., 2003). Barrie (2004) notes that in Australian higher education knowledge, skills and abilities of graduates are referred to as attributes, and that these go "beyond disciplinary content knowledge ... [and] are applicable to a range of contexts" (p. 262).

Birenbaum (1996) views competencies more broadly, suggesting that higher education students needed to have four types of competencies, not only in order to meet the academic requirements of their course, but also to prepare them for the workplace. These include: *cognitive competencies* (e.g., technical skills, problem solving, information management, analysing data, making effective judgements); *meta-cognitive competencies* (e.g., self-evaluation, self-reflection); *social competencies* (e.g., working in groups, building relationships, co-operating

with others, leading discussions); and *affective dispositions* (e.g., motivation, flexibility, adaptability, initiative, taking responsibility, persevering). Sandberg (2000) argues that competencies must also include an individual's contacts, external knowledge, and resources. While there are differences in the literature in the way competencies are categorised and defined, there is general agreement that it is the effective integration and application of competencies that facilitates competence and the ability to make professional judgements (Gonczi, 1994). Such judgements are derived from the "complex structuring of attributes [competencies] needed for intelligent performance in specific situations" (p. 29). According to Gonczi this integrated or holistic approach to competency has been adopted by the professions in Australia.

There is some overlap and ambiguity in the literature between the terms competence, competency and capability. For example, Stephenson (1997) views the integration of knowledge, skills, personal qualities and the ability to learn, to deal effectively with unfamiliar and familiar situations or tasks as capability. He distinguishes between capability and competence as, "competence delivers the present based on the past, while capability imagines the future and helps to bring it about ... competence is about dealing with familiar problems in familiar situations" (p. 9). In contrast, Boam and Sparrow (1992) consider capability to be an attribute of competency. They view competency as containing two components: inputs and outputs. An input is associated with a range of capabilities, emotions and motivational factors that are found in the inner person, displayed as behaviours, that enables competent performance and that results in a measurable output or outcome. Rudman (1995) supports Boam and Sparrow's view of capability as being a necessary pre-condition to competency, but notes that a person does not become competent in the task until they have had some experience.

Birkett (1993) also views capability as contributing to competent performance. He sees capabilities as the skills that an individual draws upon to perform a work task competently. Such skills are comprised of cognitive skills and behavioural skills. Cognitive skills are a function of the job requirements and incorporate technical skills, knowledge and abilities, whereas behavioural skills are built up from personal characteristics such as principles, attitudes, values and

motives, which are a function of an individual's personality. Birkett developed a taxonomy for these two sets of skills. Cognitive skills comprise technical skills, analytical skills and appreciative skills. Technical skills represent the ability to apply technical knowledge with some expertise. Analytical and constructive skills are concerned with problem identification and the development of solutions. Appreciative skills refer to the ability to evaluate complicated situations and make creative and complex judgements. Similarly, behavioural skills comprise, personal skills – how one responds to and handles various situations; interpersonal skills – securing outcomes through effective relationships; and organisational skills – securing outcomes through organisational networks. For both cognitive and behavioural skills, the skills may be ordered according to increasing complexity, and considered to be cumulative in that the skills build upon each other. For example, if an individual applies technical skills well, the next level would be to develop analytical and problem solving skills. The development of skills typically occurs over a period of time, with appreciative and organisational skills required at the advanced stage of a professional career. This taxonomy of skills has some overlap with the cognitive and affective domains of learning outlined by Bloom (1956), which are often referred to as *Blooms taxonomy* (Sadler, 1989).

Cognitive and behavioural skills described by Birkett are sometimes referred to in the literature as hard and soft skills respectively (Coll, Zegwaard, & Hodges, 2002; Hodges & Burchell, 2003). Other terms sometimes used for soft skills, include generic skills and transferable skills, although the latter is usually seen as a broader term to describe the use of both hard (technical) skills and soft (generic) skills when applied in new contexts (Dawe, 2002). There appears to be a broad consensus in the literature that successful performance requires a combination and inter-connection between both sets of skills (Ashton, 1994; Birkett, 1993; Caudron, 1999; Georges, 1996; Strebler, 1997). Hard skills (or cognitive skills) usually include the acquisition of knowledge and are influenced by the individual's Intelligence Quotient (IQ) (Page, Wilson & Kolb, 1993). Spencer and Spencer (1993) describe technical (or hard) skills and knowledge as containing a threshold in that they represent a minimum level necessary to be able to perform a job with basic competence. Soft skills (or behavioural skills) also referred to as interpersonal, human, and people skills; place emphasis on personal

behaviour and managing relationships between people. They are primarily affective or behavioural in nature and have been associated with the area of Emotional Intelligence (EI), popularised by Daniel Goleman (1995, 1998). Weisinger (1998) described EI as, “the intelligent use of emotions: you intentionally make your emotions work for you by using them to help guide your behaviour and thinking in ways that enhance your results” (p. xvi). Many researchers argue that EI is a more important indicator of success in life than IQ (see, e.g., Cooper & Sawaf, 1997; Goleman, 1995; 1998; Mayer & Solovey, 1995; 1997; Weisinger, 1998). EI, or behavioural skills, is also considered to be a key contributor to career success (Caudron, 1999; Goleman, 1998; Kemper, 1999; McMurchie, 1998; Spencer & Spencer, 1993). According to Sternberg and Wagner (1986) a further aspect of intelligence related to a person’s competence is their *practical intelligence*, that is, the ability to ‘know how’ to do things in ways that take into consideration the contextual situation. This form of intelligence is sometimes associated with *tacit knowledge* identified by Polanyi (1969), and is similar to what Biggs (2003) refers to as *conditional knowledge*, which is discussed further in Chapter 4.

2.4.4 Competencies required for the workplace

Atkins (1995, 1999) outlined a range of skills or competencies that she considers are necessary outcomes of higher education in order to prepare graduates for both a specific profession/occupation and also for general employment. Those of direct relevance to the context of cooperative education or workplace learning, include:

- integrating theory with practice;
- acquiring expertise from application of knowledge in the practice context;
- broad interpersonal/client interaction skills;
- understanding norms, attitudes, personal qualities and collegial ways of working in the professional practice;
- understanding ethical codes and practices;
- understanding organisational contexts; ability to reflect on one's own practice and experiences, performance and development needs [in order to improve performance];

- written and oral communication skills;
- a range of personal competencies (e.g., drive, self-motivation, time management, initiative, leadership); and
- developing applied skills (e.g., teamwork, problem solving).

This broad range of cognitive and behavioural competencies required of graduates for the workplace is echoed in a number of research reports (Fleming & Zinn, 2008; Coll, Zegwaard, & Hodges, 2002; Hodges & Burchell, 2003; Sweeney & Twomey, 1997; Weisz, 1999). Business employers also assume that graduates will arrive with a minimum-level of technical competence in the job-related discipline, with the ability to apply both soft and hard skills appropriately within the context of the business (Hodges & Burchell, 2003). Given that soft skills must be utilised within a social workplace setting, a key component of these will include what Bartkus (2001) refers to as social skills. He emphasises that students' social skills are "central to the success of a cooperative education internship" and "its success is enhanced when the student is able to communicate effectively in an interpersonal work environment" (p. 48). Bartkus (2001) sees social skills as containing three elements: *Strategic social skills* (e.g. negotiating, team building, leadership); *facilitating social skills* (tactically-oriented skills that are a means to achieving strategic social skills, such as listening and speaking skills that will facilitate team building skills); and *supplemental social skills* (these are peripheral skills that provide a basis for implementing *facilitating* and *strategic social skills*, such as using basic etiquette, proper forms of address, and handshakes where appropriate).

Bandura (1997) says that competent performance in the workplace also depends on the self-efficacy of the individual; that is an individuals' belief in their ability to "organize and execute the courses of action required to produce given attainments" (p. 3). In other words, how well an individual is able to complete a task in the workplace is dependent on their actual ability (i.e., their competency) and their perceived ability (i.e. their self-efficacy) towards completing that task. Fletcher (1989, 1990) claims this could occur via a process of enactive mastery in which the students increase in confidence as they gain practical competence, which Sternberg and Wagner (1986) view as an outcome of 'practical intelligence'. Studies have shown that exposure to the workplace in cooperative

education programmes can help increase students' self-efficacy in practical science skills (Coll, Lay & Zegwaard, 2001) and in practical based tax and accounting skills (Subramaniam & Freudenberg, 2007)

In his research reviewing worker competence in a car manufacturing business, Sandberg (2000) also found that competence was more than simply a list of acquired attributes. He noted that the way workers see their job was a critical factor in determining competent performance: "Competent workers have a particular vision of what their work is and why it is that way" (p. 24). He found that employees considered that the most competent co-workers were those that fitted the description of being 'customer-optimised'. This refers to those workers who take a more holistic, external approach to their work, who not only focus on the immediacy of their own work and its connections with the work of their shop-floor colleagues, but who also have a focus on the perceived needs of the customer. Such an approach often led to subsequent engagement with a variety of other workers throughout the company, such as marketing and design, in order to find a customer-optimised solution.

Contextualisation of work also applies to employees' capacity to apply their competencies in different work situations and environments. Barrie (2004) suggests that generic or transferable attributes "may be developed in various disciplinary contexts and ... in some way transcend disciplinary outcomes" (p. 262). In contrast, Stephenson (1999) argues that generic skills are context-bound and that the notion of transferability is misleading. However, Tennant (1999) takes the view that transferability is possible with relevant training and experience. This perhaps explains why some authors view competence as a relative term, with performance being related to an individual's experience (Birkett, 1993; Rudman, 1995, Sandberg, 2000). This is also consistent with the view of Spencer and Spencer (1993) who views competence as a function of the relative proportions of the competencies held by an individual at any point in time. This suggests that an individual's competence may relate to the range of situations and contextual settings in which certain competencies have been utilised.

2.4.5 Assessing competency: Complexities and limitations

Assessment of student performance in cooperative education programmes needs to recognise, as various authors suggest, that competencies required in the workplace are broad in scope. It seems that particular attention needs to be given to the importance of behavioural competencies or soft skills. In practice, educational institutions often avoid assessing such skills. For example, Bartkus (2001) claims that students who are able to demonstrate appropriate social skills will considerably enhance their career success, but notes that “ironically, while higher education could provide preparatory training ... this is seldom the case” (p. 48). This is perhaps because to do so would create a number of challenges for educational institutions, who must address a range of related issues when incorporating cooperative education and internship programmes. Keating (2006) notes that these challenges include “liaising with employers, resourcing of these programs and a fundamental change in the role of university teaching staff from purveyor of disciplinary content to facilitator of trans-disciplinary learning” (p. 26).

While the value of cognitive and behavioural skills has been reported as being important in the workplace, it is recognised that there is a high level of difficulty both in their measurement, and in demonstrating a link between them and desired work outcomes (Arnold & Davey, 1994; Georges, 1996). In addition, Birkett (1993) considers that only an experienced professional will have developed the higher level (cognitive and behavioural) skill sets to handle complex tasks. This suggests that the level of competency that might be expected of students undertaking a co-op placement will be somewhat less than that expected from an experienced professional practitioner. In addition, most students’ work placements will differ, and contextual influences will have a significant bearing on the types of competencies required of students, as well as the level of performance expected and required.

Determining precisely what should be assessed is a complex and controversial issue. One approach to the assessment of competence is to view this through a behaviourist lens, in which the focus is on the demonstration of performance and assessment of the outcome (Gonczi, 1994). Norris (1991)

comments that performance in this sense means those actions or behaviours that can be demonstrated or observed in specified situations (commonly referred to as ‘range statements’). According to Jones (1999), this behaviourist approach leads to a focus on the elements or sub-components of the performance, rather than viewing the performance holistically. It has also been described as being reductionist because, by attempting to describe the intended outcomes in sufficient detail so as to minimise different interpretations, it ends up ignoring the performance as a whole particularly its relationship with the inherent complexities of a practice setting (Gonczi, 1994; Wolf, 1995). Perhaps for this reason, it has been argued that measuring competencies are more appropriate when there are stable conditions involving familiar and predictable problems (Wildman, 1996).

Cheetham and Chivers (1996) note that a behaviourist approach typically occurs in national vocational qualifications in the United Kingdom, which they criticise as leading to a narrow and technically focused approach to assessment. In his criticism of the way the New Zealand Qualifications Authority adopted a standards-based competency approach to assessment in the secondary school sector, Croft (1993) argues that there is an inherent comparative nature to criterion-referenced assessment, whether competency-based or achievement-based, and that “the impact of normative information on the derivation of standards” (p. 9) has not been adequately considered. As noted earlier, the influence of norm-referencing on criterion-referenced assessment in higher education is also highlighted by Barrow (2003) and Boud and Falchikov (2006).

While a learning outcomes approach may have shifted the focus away from the teacher towards the learner, determination of the ‘expected’ learning outcomes, which is a key feature of criterion-referenced assessment, is largely the domain of the teaching faculty. In the context of cooperative education, such pre-specification may ignore the unforeseen and unpredictable personal learning that results from students’ actual experiences and their subsequent sense-making of those experiences (Drake, 2001). A related issue is in the potential divergent interpretation of meaning attributed to the learning outcomes, and the associated criteria and performance standards. Because of these limitations, Knight (2000) argues that criterion-referencing, while seemingly rationale and logical, struggles to deliver what it is intended to do. He provides a number of reasons for this,

including the extreme difficulty in developing “statements of learning outcomes, criteria for awards at different levels, and formulation of thresholds” (p. 243). This is because it is difficult to specify with sufficient clarity complex, high-level concepts, such as ethical sensitivity and critical thinking. In addition, “attempts to produce precise criteria lead to a proliferation of sentences and clauses, culminating in hard-to-manage documents” (p. 243). This critique of criterion-referencing is echoed by Hussey and Smith (2003):

Learning outcomes are imbued with a spurious sense of precision and clarity, that they are insensitive to different contexts and disciplines, that they are in danger of being interpreted by students and tutors as thresholds—hurdles to be cleared—and that they need to be contextualised in order to make any practical sense of them. (p. 358)

Regardless of the level of criteria precision provided, meanings attributed to performance will always be socially constructed and will inevitably lead to multiple interpretations (Wolf, 1995). In addition, Boreham (2004) argues that such attempts at precision are unlikely to succeed because they ignore context, and inevitably disregard the important influence of tacit knowledge. A possible reason for this is that tacit knowledge is unlikely to be deemed assessable (Eraut, 2000). Knight (2000) suggests that the corollary to criteria precision is “of settling for fewer, looser statements, [that] combine manageability with imprecision” (p. 243). However, this only serves to undercut “the rationale for criterion-referenced assessment namely, that students should know exactly what they should have to do, as should academic staff and other stakeholders” (p. 243). Gipps (1994) considers that this dilemma is inevitable when attempts are made to move beyond the assessment of simpler, task-related competencies:

The main problem is that, as the requirements become more abstract and demanding, so the task of defining the performance clearly becomes more complex and unreliable. Thus while criterion-referencing may be ideal for simply defined competencies (‘can swim fifty metres’), it is less so as the task becomes more complex: either the assessment must become more complex (for example, the driving test requires intensive one-to-one assessment) or the criteria must become more general. If the criteria are more general they are less reliable, since differences in interpretation are bound to occur. (p. 89)

In relating these criticisms and limitations of criterion-referencing to the context of cooperative education, student performance in the workplace involves a

range of different tasks and responsibilities, which are not always knowable in advance (unlike the tasks and requirements expected of students in non work-based assessments). In addition, there are multiple contextual variables within each workplace setting that will influence performance, such as the support students receive, the conditions in which the performance takes place, and the unique aspects of the particular organisation and its ways of doing business. Furthermore, Torrance (2007) argues that while criterion-referenced assessment can encourage both classroom-based and work-based learning practices that emphasise *assessment for learning*, in many cases they can unwittingly fall into the trap of becoming *assessment as learning*, with “assessment procedures and processes completely dominating the teaching and learning experience” (p. 291). In the situation of work-based learning, Torrance suggests that this can occur when external assessors make judgements based on strict adherence to the criteria and without reference to its context. He argues that this should be avoided by acknowledging “that local communities of practice are the context in which all meaningful judgements are made and thus should be the level of the system at which most efforts at capacity building [and competency development] are directed” (p. 292).

A further issue affecting cooperative education programmes in undergraduate degrees is that they require a broader set of competencies to be utilised at a higher cognitive level. For example, in New Zealand a qualifications framework specifies the types of learning demanded of students, or broad learning outcomes, at different levels of learning referred to as level descriptors (NZQA, 2007). A three year undergraduate degree will normally involve three levels (i.e., Levels 5, 6 and 7), with each level broadly equivalent to each year of the degree. Undergraduate students completing an internship programme are likely to do so in their final year, which will equate to Level 7 on the framework. At this level students will be expected to “carry out processes [that] ... are applied in complex, variable and specialised contexts” and that involve “the creation of appropriate responses to resolve given or contextual abstract problems” (p. 13). What is meant by these statements is open to different interpretations, particularly when applied in cooperative education programmes involving multiple worksites, where an appropriate response in one workplace may not be considered appropriate in another. Sadler (2005) says that attempting to gain clarity in meaning of learning

outcomes, or objectives, is not straightforward:

The specification of objectives in terms of observable student outcomes is a non-trivial task and requires considerable skill. Where grading against explicit objectives has been attempted, the tendency has often been to become more and more specific, with objectives that are finer and finer grained, partly in a belief that this increases the objectivity of the process or how clearly it can be communicated. When this is taken too far, however, the sets of objectives tend to become atomistic and unmanageable. (p. 181)

Interpretation of meaning equally applies to the performance standards employed by assessors, either overtly or covertly. Brown and Knight (1994) consider this is related to how a performance standard is agreed and informed:

There is a sense in which this standard is specified in an arbitrary way, which raises the linked problems of how assessors are to be brought to agreement about the standard and how outsiders are to have confidence that the standard is reliably informed. (p. 28)

Even if standards are agreed and informed appropriately, there is the related issue of how to identify the threshold for competence. As Watson, Stimpson, Topping and Porock (2002) highlight:

If someone is 90% competent, as judged by a series of tasks or observations, are they competent to practise or do they have to achieve 100%? Are some competencies, comprising a level of competence more important than others, do they receive a weighting or do they indicate failure if not achieved? (p. 423)

As noted above, the issue of identifying performance standards is compounded by the fact that standards are context-influenced and are likely to be embedded in the day-to-day activities of the workplace (see also Hodges, 2006), informed by the collective experiences of staff. Such experiences will include tacit knowledge and intuition (Coll, Taylor, & Grainger, 2002). Therefore, gaining an understanding of the standards employed in a particular workplace is likely to be reliant on students seeking feedback from more informed others for the task in hand (Boud, 2000).

It is recognised that the principles of criterion-referenced assessment do not necessarily require that performance competency be measured in an atomistic, detailed way. In the case of the standards-based assessment approach adopted by

the New Zealand Qualifications Authority, which is not unlike a similar model developed by the United Kingdom National Vocational Qualifications (NVQ), each of the learning elements (or expected learning outcomes) can be demonstrated in a broad range of situations or contexts, either together or separately. However, performance criteria must be developed to match the application of learning outcomes in the contextual setting. The difficulty arises when trying to articulate the performance criteria in complex situations and where multiple elements are involved, such as those within a professional practice setting. In such circumstances, Gipps (1994) argues that criterion-referenced assessment is both problematic and inappropriate. Furthermore, attempts to reduce the full range of skills and competencies utilized in a professional practice setting to pre-specified, observable work actions or behaviours has been argued to be invalid and unreliable (Bowden & Marton, 1998; Bowden & Masters, 1993; Jackson, 1993), and may explain why measuring competence through performance outcomes is more commonly associated with vocational education and training involving more routine tasks (Wolf, 1995).

Criterion-referenced assessment based on assessing competence may also hide certain assumptions about what this method of assessment is intended to do and what it is actually telling us about what students know, can do and might be able to do in the future. For example, emphasis on a learning outcomes approach was criticised by a UK policy analysis on work experience (EU Fourth Framework Targeted Socio-Economic Research, 2001). The report concluded “that a narrow focus on outcomes might be counter-productive in emphasising the outcome at the expense both of the process of learning and of the relationship between different types of learning (i.e., formal and informal)” (p. 25). The formal learning here refers to that derived from delivery of higher education curricula, with informal learning referring to the ‘sense-making’ that is derived from the experiences of workplace practice. The other aspect of focusing on competence through performance outcomes is the underlying message that students may take from this. By avoiding assessing the more intangible, contributory behavioural competencies (or soft skills), we may be sending an explicit message to students that the ends justify the means. As Knight (1995) argues:

What we choose to assess (and how) shows quite starkly what we value ... So, if we choose not to assess general transferable skills, then it is an unambiguous sign that promoting them is not

seen to be an important part of our work and our programme.
(p. 13)

This suggests that if the behavioural competencies such as initiative, interpersonal communication, teamwork and self-confidence, are considered to be important in cooperative education, it may be necessary to have explicit mention of these in the assessment criteria – if only embedded in broader competency categories.

In some circumstances competence may be able to be inferred from the performance outcomes. It has been stated that it is a legitimate and appropriate practice to infer knowledge, attitudes and underlying capabilities (or competencies) from performance (Barker, 1993; Bowden & Masters, 1993). Such inference is no different to the “way that academics infer knowledge gained from the results of tests, examinations etc. - almost all assessment uses the specific to infer the general” (Gonczi, 1999, p. 186). More holistic, integrated forms of assessment that attempt to judge a broad range of competencies through inference, have been argued to be sufficiently valid and reliable in the professions (Gonczi & Hager, 1991; Hager & Gonczi, 1996; Gonczi, 1999). Such inferences are based on “the generation, collection and interpretation of evidence which is then assessed against performance criteria ... The performance criteria may be taken as a description of the evidence which needs to be collected to make a ‘safe’ inference” (Gonczi, Hager, & Athanasou, 1993, p. 13). What may be viewed as ‘safe’ is less clear and Gonczi et al. acknowledge that additional forms of assessment may be required to strengthen such inferences, such as simulations of practice, oral questioning, written tests, and multiple choice questionnaires. These additional forms of assessment are particularly suited for assessing “knowledge and understanding” (Gonczi et al., 1993, p. 14). However, the authors comment that if assessment of competence is to include more than knowledge and skills, such as attitude and values, these may require longitudinal assessments to provide assurance of reliability. This is likely to apply also to other behavioural competencies, such as flexibility, adaptability, teamwork, and interpersonal effectiveness.

There are a number of limitations on what might be inferred from performance in the context of cooperative education programmes, particularly

when used for summative assessment purposes. For example, while a range of competencies may have been employed by students in the successful completion of specified tasks or a particular work project, it is not easy to determine the extent to which different competencies have been used, nor the contextual factors that may have helped or hindered their use. It is thus likely that some students will receive greater workplace support and mentoring than other students, which is likely to be reflected in their performance. Keating (2006) cites Hager (2004) when noting that “if the community of practitioners transcends the abilities of individual members then the individual is not the appropriate unit of analysis for understanding this learning” (Hager, 2004, p. 256). As Keating then comments: “This can present problems where it is the individual that is ultimately awarded the qualification” (p. 22).

A further limitation of performance assessment in cooperative education is that the work students do on placement will vary, meaning that different competencies will be employed to different degrees with different contextual influences and complexities. This is problematic for a number of reasons. First, use of the same criteria to judge competence in variable situations and with variable contextual influences, assumes that the underlying competencies are transferable; that appropriate performance in one context is sufficient to assume competence in a different context. This assumption has been criticised as being without foundation (Brown & Knight, 1994; Norris, 1991), failing to take account of organisation culture (Boyatzis, 1982), and having questionable predictive validity (Benett, 1993). Second, this raises an issue of fairness for students who, in effect, are all doing different tasks and activities, but may be judged in relation to the same generic criteria. The different work undertaken by students cannot be easily controlled for variability in the cognitive and behavioural demands that will be placed on them. In effect, the level of difficulty of the work undertaken by students will be variable. Thus generic criteria applied to student performances that are derived from the application of variable levels of different competencies could be said to be inherently unfair. These issues are discussed further in relation to assessment validity and reliability in Chapter 3. Third, Knight (2002) highlights the need to consider the different ways criteria are formulated and subsequently interpreted in different communities, such as educational institutions and workplaces. He points out that this will “make it impossible to be sure what

any warrant means, since it is not possible to know what criteria have been used, what meanings have been attached to them and how they have been used” (p. 280).

Despite the accepted limitations of criteria-referenced assessment, Knight (2000) suggests that by having some criteria it “reduces ambiguity by compelling thought and discussion about standards, how they are expressed and what they mean” (p. 243). This is echoed by Sadler (2005) who puts such limitations into the context of a norm-referencing alternative:

The situation needs to be understood and managed rather than deplored ... A primary purpose for criteria-based assessment and grading is to communicate to students in advance about how judgements of the quality of their performances will be made, and to assure them that these judgements will be made solely with respect to the quality of their work, without influence by the extraneous factors of how other students perform or their own previous achievement history. (p. 189)

Because of the acknowledged complexities and limitations associated with criterion-referenced assessment, particularly when assessing student performance and learning in different, context-influenced workplace settings, increasingly this has led to consideration of alternative and more authentic forms of assessment (discussed in Chapter 3).

2.5 Chapter summary

Attention has been given in this chapter to the two main purposes of assessment; formative assessment and summative assessment. Formative assessment focuses primarily on providing information to students on their performance and learning, in the form of feedback, in order that they can modify their performance and learning. In contrast, summative assessment is concerned with making judgements about performance for the purpose of certification (e.g., in the form of a grade). Particular attention was given to formative assessment, and its relationship to summative assessment and sustainable assessment. An important feature of formative assessment is the need to ensure there is effective feedback (internal and external) during and following the work placement. The need for cooperative education to develop students’ capacity to become lifelong

assessors of their own work, in order to become self-regulating professionals, was viewed as being an important component of both formative and summative assessment practices. A necessary component of this is for students to understand and engage with workplace performance standards and criteria. A number of tensions between formative and summative assessment were viewed as difficult to overcome, for example, the conflict of interest if workplace staff and academics take on dual roles of formative mentors (or supervisors) and summative assessors.

Consideration was given to the two common frameworks used in summative assessment: norm-referencing (measuring student achievement in relation to other students) and criterion-referencing (measuring student achievement in relation to given criteria and standards). A criterion-referencing approach was viewed as being more appropriate to cooperative education. Particular attention was given to students' ability to utilise a range of cognitive and behavioural competencies in order to demonstrate competence through performance. However, when the principles of criterion-referenced assessment were applied to learning and performance in the workplace a number of complexities and limitations were highlighted. First, there is the inherent difficulty in gaining consistent interpretation of meaning of learning outcomes and related performance criteria, regardless of the level of precision articulated. Second, unless contributory competencies are themselves assessed, one must infer these from performance outcomes. However, such inference is not straightforward, and is arguably impractical, given the range of work tasks, activities and responsibilities undertaken by students on work placements. Third, potentially there may be multiple workplace assessors involved, with varying experience and expectations; each may interpret levels of performance differently. Finally, it is difficult to ensure fairness in assessment when generic criteria are used for assessing work tasks and activities that are all different, and that may involve different levels or degrees of cognitive and behavioural ability. Because of the limitations associated with criterion-referenced assessment in higher level, complex situations like cooperative education, more innovative and authentic forms of assessment must be considered. However, like all summative assessment, these must also address important issues of validity and reliability, which are now discussed in Chapter 3.

Chapter 3

Literature Review:

Validity, reliability and authentic assessment

3.1 Chapter outline

In the previous chapter discussion of the literature focused on the different purposes of assessment. Attention was also given to criterion-referenced (summative) assessment, and its implications for cooperative education. Because of the complexities and limitations involved when assessing higher level learning (such as occurs in cooperative education) strict adherence to the principles of criterion-referenced assessment was viewed as being problematic. This has led to more innovative and authentic forms of assessment being developed. These forms of assessment will be considered later in this chapter. First, in Section 3.2 attention is given to the important principles of validity and reliability, which all forms of summative assessment are expected to address, including those used in cooperative education, which are part of an academic programme and require summative grading. In Section 3.3 these principles are then considered in relation to alternative methods and approaches to assessment.

3.2 Validity and Reliability

Assessment in cooperative education must consider two key principles that have traditionally underpinned all good assessment - validity and reliability. Originally, these principles were associated with norm-referencing and quantitative measures of educational achievement such as those applied to tests and exams (Messick, 1989; Mehrens & Lehmann, 1991; Benett, 1993). More recently they have become synonymous with all forms of assessment, including criterion-referenced assessment. A review of these principles, and how they relate to cooperative education, follows. This section concludes with a discussion of the overlap and tensions between validity and reliability.

The literature on validity and reliability emphasises summative assessment

of learner outcomes in relation to student performance. This section will therefore focus primarily on validity and reliability in relation to workplace performance. It is recognised that cooperative education involves students in what Kolb (1984) refers to as experiential learning. That is, students learn from their experiences both during the carrying out of the tasks and activities at the time, and when reflecting on those experiences afterwards. Therefore, summative assessment must also consider validity and reliability in relation to these learning experiences. This issue is discussed separately when reviewing alternative and innovative forms of assessment in Section 3.3.

3.2.1 Validity

Messick (1989, p. 13) defines validity as “an integrated evaluative judgement of the degree to which empirical evidence and theoretical rationales support the adequacy and appropriateness of inferences and actions based on test scores or other modes of assessment”. The term test is used generically by Messick to include “any means of observing or documenting consistent behaviours or attributes”. In short, validity is concerned with ensuring that what is being assessed is in congruence with what is intended or supposed to be assessed (Brown & Knight, 1994; Gipps, 1994; Gonczi, Hager, & Athanasou, 1993). Maclellan (2004) adds the point that “what is to be deemed valid is not the assessment instrument used or the resulting scores per se but the inferences which are derived from either” (p. 313). There are different aspects of validity that are discussed here, including: *content validity*, *construct validity*, *predictive validity*, *concurrent validity*, *consequential validity*, *systemic validity*, *fairness*, *efficiency/economy*, and *face validity*.

3.2.1.1 Content validity

Content validity refers to the adequacy of sampling of the knowledge and skills from all the possible tasks completed by students in relation to the larger domain of knowledge and skills (Gipps, 1994; Yu, 2005). In effect, content validity is concerned with ensuring that what is assessed is a reasonable representation of the particular knowledge and skills that the student is expected to acquire. In the structured environment of an educational setting, where the

curriculum is developed and delivered by specialist academics with relevant domain discipline expertise, ensuring content validity is relatively straightforward. However, when students undertake work placements the domain of knowledge and skills required becomes much broader and less certain. Therefore identifying adequate sampling of that work is much more complex and problematic.

There is some overlap in the literature between the terms content validity and construct validity. For example, Maclellan (2004) describes construct validity in a similar way to that previously described as content validity: “[Construct validity] assumes that indicative [performance] tasks are merely samples of the domain that is being assessed, which, in turn, necessitates that the tasks are representative of the domain in question” (p. 314). Gipps (1994) views construct validity as being concerned with “whether the test [of performance] is an adequate measure of the construct; that is the underlying (explanatory) skill being assessed” (p. 58).

3.2.1.2 Construct validity

Construct validity originates from norm-referencing which had a more quantitative, theoretical focus through drawing inferences from test scores to a psychological and abstract construct (Cronbach, 1971). In criterion-referencing the focus is more qualitative in nature and focuses on the degree to which one can infer certain constructs (such as competencies) from the actual performance (Benett, 1993). In their consideration of construct validity, Frederikson and Collins (1989) emphasise the importance of authenticity, that is the criteria used and being measured should relate directly to the actual performance of the student. Gray (2001) expands on this by stating, “that the work being assessed has been produced through the intellectual endeavour of the learner” (p. 12). Construct validity is also viewed as being dependent on making a generalisation from a set of specific performances observed (Black, 1998), that may occur in a range of settings and across independent observers (Satterly, 1994). This is problematic in complex situations involving multiple constructs or competencies. As Mulder, Weigel and Collins (2007) point out: “Although different performances in different occupational settings can be described with the same generic descriptions, this does not necessarily mean that the same or similar underlying

competence [or competency] is responsible” (p. 74). Similarly, one cannot assume that a particular performance and its underlying constructs (or competencies) are representative of the whole array of possible performances. As Knight (2002) notes, “repeated observations are necessary before claiming that the observed behaviour is likely to be stable” (p. 279). Even with repeated observations, validity is not guaranteed, particularly where the domain is large and complex as Ridgeway (2000) notes:

A core problem for construct validity arises from the fact that any test samples student performance from a broad spectrum of possible performances. The construct validity derives directly from the tasks used. In areas where the domain definition is rich, this is particularly problematic, because sampling is likely to be sparse. (p. 4)

Gray (2001) highlights the difficulties in achieving authenticity when moving away from classroom-based activities and the traditional assessment methods employed of tests and examinations. To increase authenticity in performance assessment he argues that multiple views should be sought. While multiple views may establish that the performance was indeed that of the student, the issue that must also be addressed is whether the observations of performances are actually being measured against the same underlying constructs within the same domain. Construct validity may not be met if the performance being assessed does not sample some parts of the domain it is supposed to represent. As Mehrens (1992) notes:

In studying the validity of performance assessments, one should think carefully about whether the right domains are being assessed, whether they are well defined, whether they are well sampled, whether – even if well sampled – one can infer to the domain. (p. 7)

Benett (1993) suggests another approach to overcoming the difficulties in authentic assessment settings, such as work-based learning: “If multiple sources of evidence of learning are used as a basis for assessment (and self-assessment), they would allow a broad range of key issues to be addressed” (p. 84). However, in practice, one could argue that while multiple sources of evidence may assist validity, this doesn’t address the fact that in many cases student performances are unlikely to be able provide sufficient samples of a construct to be generalised to the domain in question. This is particularly the case when work placements involve a relatively short period of time in the workplace, such as occurs in

internships.

Wiliam (1998, 2001) considers that when moving to alternative and more authentic forms of assessment that it is appropriate that such assessment be construct-referenced. This refers to ensuring that performance criteria and standards are informed or referenced to the views of experts or practitioners familiar with such constructs and domains. Wiliam (2001) acknowledges that while there may not be consensus on the criteria and standards, there is likely to be broad agreement on examples (or exemplars) that could be used of appropriate and inappropriate behaviour that would be representative of the particular domain or construct. However, given the variable nature of the tasks and activities students undertake during a work placement, involving a broad range of interconnected competencies, the ability to identify the range of behavioural examples to cover each of these is likely to be impractical.

The other aspect of construct validity is whether a competence-based or achievement-based approach to criterion-referencing is used. Inferences made from constructs (such as competencies) must be considered in relation to whether the intended outcome is a simple binary grade (pass/fail or competent/not yet competent) or a more expanded grading system (e.g., A, B, C, D) that is typical in achievement-based assessment. As Johnson (2008) highlights:

For results to be interpreted in a valid manner it is important that there is transparency about how grades are determined. Potentially, the meaning of different grade thresholds might be less transparent than that between competent/not competent if there is a lack of understanding about the differences between grades. (p. 180)

In relating construct validity to cooperative education, a key issue is in trying to minimise differences in interpretation of performance (against the criteria and standards) by assessors. To minimise inferential differences, thereby increasing validity, the components within the knowledge or skill domain (or competency constructs) must be tightly defined. However, such precision can lead to “fragmentation and an overburdening of discrete assessment tasks” (Gipps, 1994, p. 87). Given the complexities and variety of the work usually undertaken by cooperative education students, attempts to precisely define the range of tasks and skills to be assessed in the placement are likely to be unrealistic and

ultimately futile, and may well inhibit development of more integrated and conceptual competencies such as critical thinking, flexibility, initiative and problem solving. Such attempts also assume that all learning can be codified and determined beforehand, which is unlikely and may well lead to a never-ending spiral of specification (Wolf, 1995).

A further issue when considering content and construct validity in cooperative education is that students usually undertake a range of work tasks and activities that are related to their curricula in different ways. For instance, a business marketing student might be expected to undertake relevant work that is within their capability, determined to some extent by the sort of business and marketing papers they have completed to date. However, each work placement will be different, will utilise different curricula components and involve different levels of complexity. For example, one student may undertake a number of tasks in order to assist with, and gain an appreciation of, a variety of marketing activities within the company. These work activities may span multiple elements within the marketing curricula, such as: customer service; market research; market information analysis; consumer behaviour; and so forth. Another student may have a placement in which they work within a single field of the domain, such as undertaking market research. The former student is likely to utilise a number of elements within the marketing curricula, but at a more surface level. The latter student is likely to utilise a single element within the marketing curricula, but at a deeper level. In addition, there are likely to be a range of constructs or competencies that are not subject or discipline-specific, such as the more generic skills like effective time management, interpersonal skills, and analytical skills. Each of these variable elements is contextualised within the work activities, and will be influenced by the environment in which they are undertaken. These add a high level of complexity and variability, making it extremely problematic both in defining precisely which aspect of the domain the constructs will be considered against and in determining whether the tasks and activities undertaken adequately represent the constructs.

3.2.1.3 Predictive validity

Predictive validity considers the extent to which current performance can

predict accurately subsequent performance by the student (Benett, 1993). While technically it may be possible to devise an appropriate methodology to correlate an assessment score with future attainment, this is constrained by the practicalities and resources available to do so, particularly in the case of an internship where future workplace performance is likely to be post-graduation. In addition, Knight (2002) cites the work of Sternberg (1997) who considered that achievements attained in higher education are poor predictors of subsequent performance in graduates' careers. Knight suggests that this "rather diminishes the value of these assessments as feedout" (p. 282). The issue of future performance can also relate to other contexts, that is whether performance in one context is predictive of performance in another context. Of course this assumes that construct validity can be applied across contexts and domains. Even if one could establish construct validity from performance relating to a particular domain, it is questionable whether one could infer that to another domain: "Domains and constructs are multi-dimensional and complex; that assessing student achievement is not an exact science; and that the interaction of pupil, task and context is sufficiently complex to make generalisation to other tasks and contexts dubious" (Gipps, 1994, p. 159). One could add that even if such generalisation were possible, available resources are likely to make it impractical (see also *efficiency/economy* of validity later in this section).

3.2.1.4 *Concurrent validity*

Gipps (1994) links the notion of prediction to *concurrent validity*. This is concerned with having an independent assessment of the same or similar task/activity that verifies the performance and related competence (Benett, 1993; Gipps, 1994). According to Benett, in work-based learning these independent assessments of tasks "are used as the criteria for making judgements about performance at the workplace" (p. 84). Benett notes that this verification could extend to the assessment of the performance or competence undertaken by the student themselves and subsequently verified by the 'expert' workplace assessor (i.e., the staff person within the workplace who is making assessment judgements on student performance). However, he points out that this in itself cannot be seen as a completely objective process for two reasons. First, workplace assessors are likely to have "internalised the standards of performance required of practitioners

at the workplace ... these same standards would have provided them with a frame of reference for assessing students' performance at the workplace” (p. 84). Therefore regardless of the clarity of the criteria being used, it is likely that the standards applied by students against these criteria will be different to the ‘expert’ assessor. Second, judgements made by both the student and the workplace assessor will have inevitable bias that characterise individuals (such as thoughts, feelings, intentions, and personalities): “Such bias raises questions about the extent to which assessments of students' performance at the workplace are ‘real’ and it clouds certainty about the relationship between work-based learning and performance at the workplace” (Benett, 1993, p. 84). As mentioned in Chapter 2 if students are to understand the standards being employed they will need to ensure they engage in dialogue with the workplace ‘experts’, something Benett considers will assist concurrent validity: “Such interactions will help workplace supervisors to ‘verify’ that the students' self-assessments meet the necessary criteria. Indeed, it is through such interactions that the students' self-assessments are likely to approximate the workplace supervisors' assessments” (p. 84). The complexities involved in self-assessment and validity are discussed further in Section 3.3.3.1.

3.2.1.5 Consequential validity

Consequential validity refers to the subsequent effect of the assessment on learning and the inferences that the learner and others may take from the results of the assessment (Messick, 1989; Linn, 1993). Messick considers that assessment is value-laden and that results or outcomes are usually interpreted for more than one purpose, which may be intended or unintended. The use made of assessment results can be far reaching, which Madaus (1988) referred to as ‘high stakes testing’. In his work on the impact of assessment results on the curriculum, Madaus identified several consequences of assessment outcomes, such as pressure on teachers to ‘teach to the test’ and the corruption of the learning process caused by societal pressures to treat the results as the ultimate educational goal. Boud (1995b) comments that: “Consequential validity is high when there is a positive backwash effect on learning and low when it encourages ways of learning which are counter to what is desired” (p. 37). Boud (1995b, 2000) also notes that high consequential validity can be linked to deep approaches to learning and to those

assessment practices that impact positively on the skills and capacities needed for student self-assessment.

In considering consequential validity in relation to assessment in cooperative education, there are potentially significant personal and social consequences for students beyond the academic outcome or grade awarded. For many students, the placement will be their first experience of relevant work related to their study. This formative experience is likely to create an important and lasting impression. Feedback, provided through the assessment, will help their understanding of their strengths and weaknesses, their likes and dislikes and may influence their future career choices. A successful work placement may well be an important feature of a student's curriculum vitae (CV), which is used for gaining future employment, particularly in potentially gaining a good employer reference. Conversely, the assessment process will identify any students who fail the work placement which could have considerable negative consequences, including the impact on the student's ability to gain employment, and a view that the student is not suited to their intended career. From a faculty perspective academic staff, attuned to classroom-based pedagogy and traditional forms of assessment, may be uncertain about or uncomfortable looking at different approaches to assessment when students go out on placement. There is therefore the potential to impose inappropriate forms of assessment that pay insufficient attention to the transformative learning that can result from the situated and contextualised nature of workplace experiences. The consequences of which, although unintended, may be the encouragement of surface-level learning. Finally, attention needs to be given to the consequences of the assessment for students' future learning. Cooperative education provides the opportunity for students to gain an understanding of their own skills, knowledge and abilities in a real working environment. It also provides the opportunity for them to gain practice in self-regulating their performance in-situ and to take stock of their performance at the end, which in turn will assist their future work performance upon graduating. This suggests that different approaches to workplace assessment need to be considered, for example, by involving students in self-assessment.

3.2.1.6 Systemic validity

A further aspect of validity is what Frederiksen and Collins (1989) refer to as *systemic validity*. This is concerned with the extent to which the wider educational aspects of curriculum and pedagogical practices change in order to improve the learning that the assessment item is designed to measure. Frederiksen and Collins identify two things that can help meet systemic validity: the directness of the assessment item and the judgement required in assigning a mark. Direct assessment usually involves setting an assessment task that enables the assessor to observe performance directly (and in doing so also ensuring authenticity). By observing performance directly, teachers can determine which assessment practices contribute most to learning, and adjust their teaching practices accordingly. Where assessment requires the assessor to make judgements in assigning marks to more complex aspects of learning and performance, such as analysis and reflection, then the assessor must have a good understanding of the criteria and how to use them, which will require professional development and training (which in turn contributes to systematic improvement in teaching practices).

There are a number of implications of systemic validity for cooperative education. As mentioned above, the nature of cooperative education generally involves students undertaking different and variable tasks and responsibilities that typically occur within a busy and complex professional working environment. Thus the pre-setting of assessment tasks in a way that enables an assessor to observe performance directly is unrealistic and, in any case, is unlikely to meet other forms of validity requirements (e.g., content or construct validity). Nevertheless, the broad principals of systemic validity are still relevant and are discussed here in relation to performance observation and assessor professional development. Direct observation of performance is likely to be undertaken by the employer or workplace staff within the workplace, rather than a professionally trained teacher or placement coordinator from the educational institution. Conversely, preparation for the work placement and observations of students' learning progress, for example, as measured by the quality of reflections on their experiences, is likely to be undertaken by academic staff within the educational institution. This separation between performance observation and learning

development creates two different aspects of directness of observation, both of which need to be considered. The first form of observational directness is concerned with performance-in-situ. From this perspective, systemic validity might be concerned with whether the assessment contributes to improvements in employer support and mentoring of students – the result of which will contribute to improving student’s current and future performance. The second form of observational directness is concerned with whether students are maximising the learning from their experiences. Here systemic validity might be concerned with whether the assessment contributes to improvements in students’ workplace preparation, support and supervision by academic staff. Improving such support will contribute to improving students’ reflection-in-action and reflection on-action (Boud, 2001; Schön, 1983, 1987). The variability in work placements and activities undertaken by students creates complexities and challenges in criteria setting, performance judgements and subsequent marking. Whatever the overall assessment method adopted, systemic validity is concerned with the extent to which those involved in the assessment improve their own practices in order that student learning is improved.

3.2.1.7 *Fairness*

Valid assessment must also be fair. Shephard (2003) refers to the US National Research Council definition of *fairness* as being “comparable validity across individuals and groups” (p. 175). According to Linn (1993) this means that assessment requires that any intrinsic and extrinsic factors affecting assessment do not serve to distort the results in a way that may advantage or disadvantage a particular student or group of students. Typically, validity has been applied to situations where there may be a reliance on one particular form of assessment, for example, tests/exams. This form of assessment tends to favour students who are better able to memorise and regurgitate factual information, read and write quickly, and who are less susceptible to anxiety and nervousness that is often associated with examinations. For this reason norm-referencing, with its emphasis on testing, has been criticised as being inherently unfair.

Linn, Baker and Dunbar (1991) also relate fairness to consequential validity. They argue that performance assessment, while improving authenticity

through directness, may hide equity issues and cultural influences. In relating this to cooperative education, it can be said that students' knowledge, skills and attributes will be influenced by their own background, culture and experiences. This in turn will influence their understanding of, and receptivity and ability to engage in, the tasks and activities of the workplace, which in turn will influence their performance. The workplace assessors involved are likely to have different levels of experience and skills in assessing. In addition, as mentioned in the earlier discussion on concurrent validity, each assessor brings with them their own views and biases on standards and their interpretation of performance against these. For example, an employer's views and biases will be influenced by their own sociocultural background and experiences, as well as the cultural norms of their workplace practice (which also impacts on assessment reliability – discussed in the following section).

Biggs (1994) notes, that the traditional response to ensuring fairness has been to ensure the same criteria is applied to all students. However, he points out that such criteria can fail to allow for “unanticipated learning in infinite ways” from activities such as workplace field trips and practica, “that produce learning that is productive and relevant” (p. 160). He argues that fairness is only an issue in a norm-referenced context, where comparisons are required with other students.

The aim [in a criterion-referenced system] is to see what students have learned. If student A has learned X, and student B has learned Y, and X and Y are both interesting and valuable things to learn, where is the problem? (p. 161)

While Biggs claims that each student will inevitably learn different things while on a work-placement that may be of equal value, the issue of how to identify appropriate criteria that can allow for these differences in learning, whilst also ensuring fairness, is less clear. Of course, one approach to this, which is possibly implied in Biggs' comment, could be to remove the performance element from the assessment process and have a singular focus on what students have learned from their experiences. However, there would still need to be some criteria in order to determine how the learning is being assessed. In practice, learning that is derived from workplace experiences can occur both in-situ and after-the-event. Schön (1983, 1987) suggests that the former is facilitated by reflection-in-action and the latter through reflection-on-action. However, Schön

points out that reflection-in-action occurs through everyday work tasks and activities, which impacts upon current and future performance. Boud (1994, 2001) adds that reflection-in-action requires us to first notice what is happening around us before intervening. The latter involves the taking of actions “to change the situation we find ourselves in” (1994, p. 12). What this suggests is that in practice it will be difficult to separate performance from learning, as arguably the two are interconnected and interdependent. While excluding performance from summative assessment may help to address the issue of fairness, it may be do so at the cost of other aspects of validity. For example, as noted above, Knight (1995) argues that if something is not assessed it will be taken as a sign by students that it is not important. Thus the exclusion of workplace performance from the assessment will affect consequential validity, as students may see their performance in the workplace as being far less important than being able to demonstrate what they have learned from their experiences. This in turn, may reduce their commitment to perform as well as they can; the consequences of which may be that employers are less satisfied than they might otherwise have been. This may subsequently affect an institution’s ability to source future work placements and possibly have a negative impact on the institution’s reputation. The other aspect of validity that may be affected is construct validity. This will be affected if learning in situ is ignored and sole attention is given to students’ reflections after-the-event. It is perhaps for this reason that Bennett (1993) argues that, in the context of work-based learning, validity and reliability in assessment must consider performance, as determined by the learning outcomes, as well as the learning process – even if there are no easy ways of doing this.

3.2.1.8 Efficiency/economy

Efficiency/economy in validity is concerned with the costs of the assessment, that is whether it is affordable, implementable, and sustainable (Messick, 1989). Knight (2000) highlights that achieving high validity and high reliability is the holy grail of assessment, but the pursuit of “valid, reliable assessment of complex outcomes (qualities, skills, understanding and information) is expensive” (p. 238). Efficiency and economy is particularly salient in cooperative education, where the evidential requirements for measuring performance need to be weighed against the cost of obtaining it. Such costs are

potentially high in cooperative education where work placements occur in a large number of organisations. Training of workplace assessors is potentially very expensive, assuming of course that a myriad of complex outcomes can be validly measured. Essentially, the costs of ensuring high validity must consider its sustainability within available resources. This balancing of competing demands equally applies to reliability, which will be discussed in the following section.

3.2.1.9 *Face validity*

Finally, because of the contextual nature of work-based learning Benett (1993) considers that assessment should also take account of *face validity*. The term originated in norm-referencing, described by Mosier (1947) as follows:

The term “face validity” implies that a test which is to be used in a practical situation should, in addition to having pragmatic or statistical validity, appear practical, pertinent and related to the purpose of the test as well; i.e., it should not only be valid, but it should also appear valid.

(p. 192)

Benett (1993) points out that students on placement do practical projects that are “grounded in the reality of the workplace with its own rules, norms, expectations and prohibitions. Common sense dictates that, on the face of things, one would be justified to claim face validity for these assessments” (p. 84).

3.2.1.10 *Validity summary*

In summary, many of the ways of looking at validity originated within a norm-referencing environment in which tasks performed by students were predetermined and controlled, typically through the setting of related tests and examinations. While these were subsequently used in criterion-referencing in classroom-based and more task-related activities in vocational, work-based situations, they do not fit so easily when considering performance in higher-level, complex, work-based situations, influenced by a myriad of contextual factors. This is particularly the case when considering content validity and construct validity. It seems likely that if work performance in the context of cooperative education is to be validly assessed, a different view of validity needs to be taken. Greater recognition may need to be given to a more ‘common sense’ approach as

noted in Bennet's (1993) view of face validity. This may mean viewing content validity and construct validity in a more pragmatic way, in order to take cognisance of the situated nature of work and the contextual factors involved. For example, a more diagnostic approach to performance assessment may be more appropriate, involving a mixture of criterion-referencing and, what Harlen and James (1997) refer to as, 'ipsative' (student-referenced) assessment. This would enable the contextual factors affecting each student to be embraced, such as the particular work being done, the effort put in, the support provided, and the progress made over a period of time. The importance of consequential validity is also a key factor in cooperative education, particularly in relation to whether the assessment contributes to students' future capacity to assess their own performance and learning. This may be assisted by also emphasising concurrent validity, and the need for taking a more dialogic and constructivist approach. For example, so that performance can be discussed on an on-going basis and that can encourage and enable cultural perspectives, biases, thoughts, feelings, intentions, and personalities of both the student and the assessor(s) to be openly expressed. Such an approach will also contribute to fairness by improving the understanding of performance and the related criterion and standards being used.

A further important aspect of validity is to ensure that assessment practices meet systemic validity requirements. In relation to cooperative education this means that those involved in assessment need to focus on improving those practices that impact on assessment, such as student preparation, mentoring, supervision and understanding of the assessment criteria being used. Finally, whatever assessment practices are employed, they need to take account of available resources. This is particularly pertinent in internship programmes that involve students spending a limited time in the workplace. In such cases, costs can be particularly high and there may need to be a trade-off between what is feasible (i.e., affordable, implementable, and sustainable) and other forms of validity.

3.2.2 Reliability

Reliability refers to the consistency of the assessment method to produce the same or similar result (Mehrens & Lehmann, 1991; Brown, Race, & Rust,

1995) or, put another way, “the accuracy with which the test [or assessment method] measures the skill or attainment it is designed to measure” Gipps (1994, p. 67). Brown and Knight (1994, p. 14) describe three forms of reliability: the reliability of the measuring devices; test-retest reliability; and the reliability of the assessor. The first two forms are concerned with ensuring the reliability of the instrument or method employed, which Biggs (1994, p.163) refers to as stability. Brown and Knight say that a focus on the instrument’s reliability can ignore the dynamic nature of ‘human affairs’ and that ‘people change and are changing’, implying that learning and testing conditions are never static and there will always be many influences on individuals that may well produce different test results and that have nothing to do with the instrument itself. As Wood (1991) observes:

Given an individual’s performance on a particular task at a particular point in time assessed by a particular assessor, how dependable is the inference to how that individual would have performed across all occasions, tasks, observers and settings?
(p. 43)

Instrument reliability is usually discussed in relation to written tests or, in the context of cooperative education, to lower-level repetitive tasks. It is less easily applied to the sort of workplace activities undertaken by undergraduates in cooperative education who are preparing for professional practice. As described in the previous section, cooperative education students undertake a variety of complex workplace projects or activities that would be inappropriate to reduce to task-level assessment. Given the unique nature of work placements and the work undertaken by students, it is arguable that stability can never be achieved in the assessment process and is in fact contrary to the growth and development of students sought by cooperative education programs (i.e., one would anticipate improved results second time around, assuming one could ever recreate the same situation).

The third form of reliability described by Brown and Knight (1994) is concerned with the reliability of the assessor. Black (2003) identifies two key components of assessor reliability: inter-judge reliability, which is sometimes referred to as inter-rater reliability (Baume & Yorke, 2002), and intra-judge reliability. Inter-judge reliability occurs when two or more assessors produce similar scores from observations made of the work / performance. It has been stated earlier that authenticity is enhanced by seeking multiple views on

performance, for example, from the student, employer, workplace peers and faculty staff. This multi-assessor approach can also improve reliability (Brown & Knight, 1994). However, even if one can produce an assessment instrument that has unambiguous criteria that are clearly understood and interpreted in the same way, it is unlikely to be completely free from assessor bias when applying the criteria to judge performance. As Wolf (1995, p. 133) notes, “Assessors and candidates alike are part of social and workplace groups which have their own imperatives, such as the need to get on well and work together ... The assessment does not take part in a vacuum, but within a social context”. Johnson (2008) also makes the point that assessors’ past experiences will also influence their view of what competent performance may be: “It might be the case that assessors in different contexts are actually making judgements based on different foundations from each other because their understanding of competence is based on different experiential grounds” (p. 181). Furthermore, in the case of shorter period, internship-type programmes, workplace assessors will have a limited time to make such judgements, as Watson et al. (2002) note:

The external or unfamiliar assessor will have to make a judgement based on a very short observation, which may not be representative of the competence of the student, particularly as demonstration of competence may be impeded by a range of extraneous influences such as stage fright, local circumstances and resource deficiencies. (p. 424)

Intra-judge reliability concerns the consistency of an assessor when judging multiple students’ work. For traditional, non work-based tests and assignments it is relatively straightforward for assessors to develop a comprehensive marking guide to aid marker consistency. However, such marking guidelines may be of limited value when applied to work-based assessment. A significant difficulty for academic assessors is that they are at ‘arms length’ to the work performed by the student. They are reliant on employer and student information in order to draw a conclusion on the student’s work performance. Similarly, what a student may have learned, or should have learned, is equally problematic for assessors. Given that students will be undertaking placements in multiple worksites with multiple employers, involving significant variability in tasks, task complexity and related responsibilities, the variability in the type and quality of employer and student feedback (including evidence provided to support performance) will be increased.

Suggested ways of improving inter-judge reliability and intra-judge reliability include the use of: a range of assessment tasks or methods; multiple assessors; and quality assurance moderation processes (Brown & Knight, 1994; Dunn et al., 2003). These methods in themselves may not be sufficient to deal with the complexities inherent in the assessment of cooperative education. Brown and Knight say that reliability is a concept that was developed in psychometrics where a number of assumptions were made of the purpose of assessment and the nature of the data collected. This was attuned to norm-referenced assessment and not criterion-referenced assessment. Not surprisingly, as Gipps (1994, p. 84) comments, there is a “lack of consensus about a range of adequate approaches to evaluating reliability in criterion-referenced assessment”. Brown and Knight (1994) consider that criterion-referenced assessment should involve the production of evidence to show that the student has demonstrated the required competency: “The exercise is a ‘goodness of fit’ exercise and reliability, then, is a question as to whether the matching of evidence against the criteria is well done” (p. 19). Black (1998) considers that oral presentations can provide for strong (and reliable) evidence of performance as “there can be dialogue about the constraints and the reasoning behind strategies, tactics and interpretations that may not be clear from the ‘product’, and in some cases the processes involved may be demonstrated” (p. 89).

3.2.3 Validity and reliability: Overlaps and tensions

As discussed above, because validity and reliability originated in a norm-referenced system they have do not fit so well in a criterion-referenced system. When used in criterion-referencing the two concepts often come into conflict. For example, in trying to ensure criteria are understood they may end up being over-prescribed which, while giving the impression of (instrument) reliability, ignores the meanings that may be attributed to the criteria in different contextual settings (Hussey & Smith, 2003; Wolf, 1995).

Another reason that validity and reliability do not translate so well in a criterion-referenced system is that they originated in a psychometric testing environment that focused on ensuring cognitive achievement. As discussed in Chapter 2, professional practice requires graduates to have a broad range of

cognitive and behavioural competencies. Providing valid ways of measuring behavioural competencies is a much greater challenge, as Brown and Knight (1994) highlight: “How far it is possible to have a valid assessment of a person’s commitment or leadership abilities is not clear, which is one reason why assessors have tended to concentrate on the cognitive areas of achievement” (p. 24).

It has been stated that reliability is a necessary, but not sufficient condition for validity (Black, 1998; Sadler, 1989). The significance of the words ‘not sufficient’ is explained by the fact that you can be consistently measuring performance (thereby ensuring reliability), but may be consistently measuring the wrong thing. In the situation of ensuring predictive validity, a necessary condition would be the reliability of the assessment method to produce a similar result. The requirement for meeting validity may also result in additional reliability measures. For example, as mentioned above, in order to ensure construct validity the number of performance tasks may need to be increased to ensure the domain is adequately covered. This would also require that the design of each performance task meets reliability measures. Thus the cost of meeting validity requirements must include the additional costs of ensuring reliability. As was stated earlier, reliability may be improved if a range of assessment methods are used, such as oral presentations and when multiple assessors are used. However, such an approach will inevitably increase costs, potentially ignoring the issue of efficiency/economy in validity. In other words, available resources will always dictate what measures can be taken to increase reliability.

Pursuance of reliability in the interest of meeting accountability needs (of individual teachers, institutions and government agencies) has been criticised as coming at the expense of validity (Nuttall, 1987). Brown and Knight (1994) noted the tendency in criterion-referencing to focus on measuring outcomes or the products of study. While this may increase reliability they argue that it usually ignores the validity of the processes involved, which are undertaken within the context-bound parameters of the particular setting, be it the educational institution or the workplace. Wiggins (1998) considers that assessment design methods typically have *function* (purpose/intentions) following *form* (design and measurement), rather than the other way round. Implicit in this is that a key aim of assessment - facilitating improvements in learning - is of secondary importance

to demonstrating that the assessment method is consistent in its measurement. This suggests that, in many cases, the 'reliability tail' may be wagging the 'validity dog'. A further aspect of this conflict can be seen in relation to earlier discussions in Section 2.4 on ensuring assessment pays attention to both cognitive and behavioural competencies. In their examination of assessment in teacher practica, Coll, Taylor and Grainger (2002, p. 6), warn us of the dangers of following a traditional science-based approach to performance measurement with its emphasis on reliability (i.e., replicability of results over time). They suggest such an approach can often lead assessment designers to focus on the more tangible and identifiable technical competencies, at the expense of the more difficult-to-measure soft/generic skills. While this may achieve reliability, it is at the expense of validity.

The tension between reliability and validity is widely reported (Gipps, 2005; Harlen, 1994) and Gipps suggests that the balance between the two should be determined by the assessment purpose. In the context of cooperative education, while a student's performance is important, arguably it is less important than the formative learning that occurs and the related experience and preparation it gives students for future employment. Such preparation includes students having a greater understanding of themselves, their strengths and weaknesses, and their future learning needs. In effect, greater attention needs to be given to students' formative development, which will mean avoiding summative assessment practices that conflict with this.

As stated in Chapter 2, effective formative assessment requires students to understand and engage with the criteria and performance standards that are to be used. This will enable them to judge for themselves how they are performing and take appropriate action to regulate their actions during the doing of it (Sadler, 1989). Thus construct validity may need to be reconceived as students' effective engagement with the criteria and standards that are appropriate for the task in-hand. An important element in assisting student understanding of the criteria and the standards will be the use of formal and informal feedback. In this way, student performance becomes a joint responsibility of the student and the assessor(s), rather than the sole domain of the workplace or academic assessor. This also implies that the focus in reliability will be on the joint interpretation of

the assessment instrument, and the inter-judge reliability involving the student and the assessor(s).

In summary, validity and reliability is complex when applied to cooperative education. Unlike the structured learning that occurs in on-campus settings, cooperative education involves learning in different, context-influenced workplace settings. As with criterion-referencing, conventional approaches to validity and reliability assume that student learning and performance are knowable, observable, and therefore measurable. However, in cooperative education it is argued that such assumptions cannot be made and that validity and reliability must be reconsidered. How these are applied will relate to the assessment methods and approaches adopted. The following section considers alternative assessment methods and approaches that attempt to overcome the limitations of traditional forms of assessment, in the context of cooperative education.

3.3 Authentic assessment methods and approaches

3.3.1 The need for alternative and authentic assessment

So far, the discussion of the literature has focused on the broad principles of what is considered to be good assessment, and how these relate to student learning in cooperative education. Particular attention was given in Chapter 2 to the inter-relationship between formative and summative assessment, and the complexities involved in criterion-referencing. Attention has been given in this chapter to the issues involved in validly and reliably assessing workplace competencies. Student learning is likely to involve more than skill acquisition and the development of workplace competencies. According to Yorke (2003) determining what these are relates to the curriculum: “When considering the assessment of work-integrated learning it is necessary to know what students might be expected to learn in the workplace and how this relates to the broader educational curriculum” (p. 480). This statement suggests that what is learned in the workplace is knowable in advance and can be codified in a way that can relate back to the curriculum. However, Page (1982) argues that it needs to be recognised that work-integrated learning (or cooperative education) is an

inductive process, which necessitates students taking responsibility for their own learning. For this reason, he sees a deductive approach, involving the teacher setting precise, learning objectives in advance as inappropriate. He considers that an inductive approach involving students gaining curricula-informed or academic insights from practice as a more suitable basis for subsequent assessment. While this student-driven, integrative approach has merit, Eames (2003) considers it also has limitations:

It risks ignoring other learning that could be entirely valid but not integrative, as the variability of work placements may provide other opportunities to learn which may not be easily related to what is learnt in the classroom. This may include the social sharing of information amongst colleagues at work, or the need to be dressed appropriately when working with the public.
(p. 26)

Eames (1999, 2000, 2003) notes that a broader perspective on students' workplace learning needs to take account of workplace culture, norms of practice and norms of behaviour as part of an assimilation into a new community of practice. Students also learn a great deal about themselves – their strengths and weaknesses, their likes and dislikes – and how to “be able to test their preparation for living and working in a global world” (Dawson, 1989, p. 6). Essentially, the learning derived from a cooperative education work placement is broad in nature and how this learning is viewed will influence the assessment methods and approaches adopted. Chapter 4 considers these influences in more detail, particularly those theories of learning of relevance to cooperative education.

The breadth of learning that is likely to occur in a work placement requires a reconsideration of assessment methods and approaches that may be used. Conventional methods of assessment typically include tests, multi-choice and essay-question examinations, and continuous assessment via essays and scientific reports (Sambell, McDowell, & Brown, 1997) and are referred to by Solomon (1999) as being teacher-centred. As noted in Chapter 2, these methods of assessment emphasise the demonstration of knowledge and skills associated with a prescribed curriculum. However, such methods do not fit well in the context of workplace learning. Solomon (1999) argues that workplace learning is by nature ‘learner-centred’, rather than ‘teacher-centred’, and argues for alternative, learner-centred assessments such as “negotiated learning contracts and portfolios” (p.

123) being more appropriate. In fact, it can be argued that many of the conventional, teacher-centred approaches to assessment are inappropriate regardless of where the learning occurs. For example, Race (1999, p. 62) highlights what he sees as the numerous limitations of examinations, in the form of an interim or final unseen written test. These include: the inability to motivate students to learn, other than for the purpose of passing the examination; a focus on giving marks or grades, with minimal or no feedback given for future learning and development; the encouragement of surface learning, rather than in-depth, or 'deep' learning; its tendency to be a 'bolt-on' addition to curricula design, rather than an integral part of it, leading to questionable validity and reliability; and its failure to adequately measure intended learning outcomes. In addition, Wenger (1998) argues that tests and examinations are at odds with learning that occurs outside the classroom (such as in the workplace): "[Tests require] knowledge to be demonstrated out of context, and where collaborating is considered cheating. As a result, much of our institutionalised teaching and training is perceived by would-be learners as irrelevant ... and boring" (p. 3). Race (1999) also criticises continuous forms of assessment, such as essays and reports, as too often focusing on narrow components of learning such as testing skills "that are primarily associated with preparing essays and reports, rather than the deeper knowledge or understanding that may be intended" (p. 3). Furthermore, he sees these continuous assessments failing to adequately address validity and reliability issues, because of the difficulty in detecting "unwanted collaboration" (p. 64). Brown (1999) considers that a change is needed: "Conventional ways by which we choose to assess our students are just not good enough to achieve what we want, so we need to radically review our assessment strategies" (p. 4). According to Johnston (2002) these criticisms are based on a growing concern that there is disconnect and incompatibility between traditional methods of assessment based on positivist principles (with the underlying emphasis on psychometrically-based norm-referencing), and more recent theories of learning that take an educational view of assessment (these are discussed further in Chapter 4).

The concerns with conventional forms of assessment have focused attention on alternative forms of assessment. Birenbaum (1996) argues that this involves a shift from a *testing culture* to an *assessment culture*, which favours:

The integration of assessment, teaching and learning; the

involvement of students as active and informed participants; assessment tasks which are authentic, meaningful and engaging; assessments which mirror realistic contexts, in contrast with the artificial time constraints and limited access to support available in conventional exams; focus on both the process and products of learning; and moves away from single test-scores towards a descriptive assessment based on a range of abilities and outcomes. (p. 4)

Such an assessment culture requires a focus on what the student knows and can do and that encourages and develops the autonomy of learners (Black, McCormick, James, & Pedder, 2006; Yorke, 2003). This necessitates involving students in evaluating their own performance and progress towards their goals or objectives (Brookhart, 2001; Nicol & McFarlane-Dick, 2006; Sadler, 1989, 1998). As McDowell and Sambell (1999) note: “Students appreciate assessment tasks which help them to develop knowledge, skills and abilities which they can take with them and use in other contexts such as in their subsequent careers” (p. 81). Such careers will require graduates to be self-regulating (Pintrich, 1995), independent and self-motivated learners (Zimmerman, Bandura & Martinez-Pons, 1992; Zimmerman & Schunk, 2001).

The term alternative assessment is sometimes used interchangeably with other similar terms in the literature. For example, contributors to the book *Assessment Matters in Higher Education: Choosing and Using Diverse Approaches* (Brown & Glasner, 1999) use the term innovative assessment in the same way as others refer to alternative assessment. Elsewhere, common terms used include performance assessment and authentic assessment, which have a slightly different meaning to each other. Given the performance-nature of the work done by students in cooperative education and the fact that it occurs within an authentic workplace setting, these two terms will be briefly discussed here.

The term *performance assessment* originated in the USA in the 1950s as an alternative form of classroom-based assessment to the prevailing multiple choice tests (Gipps, 1994), that operated within a norm-referencing model. Performance assessment is viewed as assessing what students can do with what they know (Doherty, Riordan, & Roth, 2002). As discussed in Chapter 2, performance involves students demonstrating competence (what they can do)

through the use of a range of cognitive and behavioural competencies (what they know) to a given work task or activity. An important underlying assumption of criterion-referenced assessment is that student learning outcomes can be demonstrated through performance.

Boud and Falchikov (2005, p. 35) refer to the earlier work of Newmann and Archbald (1992) describing authentic assessment as “the linking of assessment tasks with normal professional tasks to ensure that there is greater correspondence between student work and that undertaken in workplaces”. Keating (2006) suggests that such authentic assessment tasks will include “work reports and work performance, rather than the traditional tools of academic assessment, such as the examination and the essay” (p. 22). What distinguishes performance assessment from authentic assessment is that authentic assessment is embedded in a ‘real-life’ situation, as opposed to a ‘contrived’ situation, and attempts to measure performance in the context in which it is intended (Black, 1998; Meyer, 1992). Essentially, while performance assessment *may* use real-life situations within an appropriate context, it *may not*. The significance of context emerged from the Harvard Project Zero Team study of high school science, which found that higher levels of understanding could only be fully demonstrated through performance in different and unfamiliar contexts (Wiske, 1998). Subsequently, a student’s level of understanding or knowledge is considered to be *performative* if they can apply concepts appropriately to different situations in unfamiliar contexts (Gardner, 1999, 2006; Wiske, 1998).

Whatever alternative or innovative assessment practices are adopted, attention will need to be given to its implementation. As Race (1999) informs us, “It is essential that innovation is not approached lightly, or engaged in for its own sake. The future careers and lives of students are at stake and the scope for experimentation must be carefully delineated and planned” (p. 57). McDowell and Sambell (1999) identify a seven point guide which they suggest can help lecturers “promote success” when implementing innovative assessment. This is summarised here:

- *Consider student workload carefully.* Attention needs to be given to the workload implications of the assessment for students;

- *Take steps to maintain motivation.* Consider setting interim deadlines, combined with regular guidance and feedback;
- *Introduce a new form of assessment carefully.* Recognition needs to be made that students may be uncertain or even hostile about new approaches, given their experiences to date. Students need to be aware of why the new approach is being introduced;
- *Establish a clear framework and guidelines.* Students need to be aware of what is expected of them, particularly where the tasks they are involved with are non-routine and different for each student. Clear guidance will help students to act independently and make their own decisions and be more secure about the overall parameters of their work;
- *Help students to understand the assessment criteria.* This applies to any form of assessment, but more so if self- and peer-assessment is to be introduced;
- *Pay careful attention to organisational details and procedures.* When moving to new forms of assessment institutional policies and procedures need to be reviewed. There may well be gaps due to the different nature of the assessment being introduced which needs to be carefully thought through; and
- *Pay particular attention to how you award marks and for what.* Marking new forms of assessment such as group design projects, oral presentations or portfolios can present problems.

There is some consistency between McDowell and Sambell's (1999) seven point guide and Hounsell's (2008) six key components identified by students as contributing to successful performance, as outlined in Chapter 2. For example, a key aspect of Hounsell's work was the importance students place on ensuring expectations of performance are clear and that they are given regular guidance and feedback on their performance (both formative and summative).

A further issue when implementing alternative forms of assessment is a need to ensure they do 'double duty' (Boud, 2000). Of particular relevance to cooperative education is that double duty includes:

- Encompassing formative assessment for learning and summative assessment for certification; and
- Focusing on the immediate task and on the implications for equipping students for lifelong learning in an unknown future.

In the context of cooperative education, one could add a further double duty obligation, that is: they attend to the requirements of both the educational organisation and the workplace organisation. This additional double duty recognises that the two organisations are likely to have different motives and subsequent requirements for the student work placement. For the workplace host, the emphasis will be on performance related to the satisfactory completion of specified work activities and tasks. For the educational organisation, the likely emphasis will be on student learning, and the demonstration of learning objectives or outcomes. Assessment practices must therefore ensure they meet both requirements without compromising either.

Before considering different forms of alternative assessment, a distinction needs to be made between assessment methods and assessment approaches. Brown (1999, p. 8) views methods as the: “techniques and tools used for assessment”, such as case studies, artefacts, reflective journals and portfolios. In contrast, approaches are viewed more holistically as encompassing: Self-assessment; peer-assessment; group-based assessment; negotiated learning programmes, computer-based assessment; and workplace-based assessment. For the purpose of this thesis, Brown’s distinction between methods and approaches will be used here. The following two sections consider assessment methods and approaches that attempt to deal with the complexities involved in authentic practice situations and that are viewed as contributing more effectively to learning; in ways that develop the knowledge, skill sets and dispositions that will encourage autonomous learning and contribute to students’ ability to be lifelong assessors of their own learning.

3.3.2 Authentic assessment methods

When considering the issue of assessment validity earlier, an important aspect of this from a student' perspective is whether the assessment is *fair*. Related to this is *consequential validity*; that is the consequences of the assessment for the student. Sambell et al. (1997) conducted a longitudinal study of student perceptions of consequential validity that involved 13 case studies of alternative assessment methods in practice. They found that, whether the assessment was traditional or alternative, students consider assessment is fair and has a positive effect on their learning when it:

- Relates to authentic tasks;
- Represents reasonable demands;
- Encourages students to apply knowledge to realistic contexts;
- Emphasises the need to develop a range of skills;
- Is perceived to have long-term benefits;
- Rewards genuine effort, rather than measuring 'luck';
- Rewards breadth and depth in learning;
- Fosters student independence by making expectations and criteria clear;
- Provides adequate feedback about students' progression; and
- Accurately measures complex skills and qualities, as opposed to an over-reliance on memory or regurgitation of facts.

An interesting aspect of these findings are that they are consistent with much of the literature discussed so far, particularly in relation to the importance of: Sustainable assessment (Section 2.2); formal and informal feedback (Section 2.3); and those aspects of validity and reliability viewed as being more appropriate in a cooperative education setting (Section 2.4). Sambell et al. (1997) conclude that, “the striking comparisons students drew between conventional and alternative assessment mechanisms suggest that an effective way to change student learning behaviour is to demonstrably alter the method of assessment” (p. 366).

Brown (1999) describes a number of alternative assessment methods that she believes are more appropriate in practice-settings and that assessors may wish to consider, and these are briefly discussed here. Those methods outlined by Brown that are intended to be used for assessing simulated practice, such as projects, case studies and in-tray examination exercises have not been included. In discussing the alternative assessment methods listed, views of other researchers are also incorporated. Given that portfolios are increasingly being used in a number of disciplines in cooperative education, additional attention is given to this. It is recognised that this list is not exhaustive, and that there are many variations on those that are given, including integrating different aspects of them. This list provides some of the more common methods used that have been discussed in the literature. These are discussed in relation to cooperative education in general, and where appropriate, the business internship specifically.

3.3.2.1 Competence checklists and observation of performance in-situ

Competence checklists are often used by professions over a period of time to “assure that a range of activities have been assessed, often more than once” (Brown, 1999, p. 96). Essentially, this requires the student and an assessor to provide a list of competencies expected in the work and to identify dates and times when these can be demonstrated and verified by an assessor. This method is often used in conjunction with observation of the demonstration of skills in practice. This is common in some professions, such as teaching and health, where the ability to observe student performance in different situations over a period of time is feasible. Such observations may or may not include use of competence checklists. Where they are not, reliance is placed on the subjective standards of the assessor. Brown makes the point that such methods can be problematic when evaluators are “new to the task, have little experience of assessment, see very few students against which they can compare performance or have unrealistic expectations of what can be achieved” (p. 98). She suggests that “clear, explicit and available criteria” (p. 99) can help alleviate these problems. However, depending upon the design of the assessment process, such methods may fail to meet reasonable and acceptable levels of validity and reliability in cooperative education programmes like the business internship, particularly if reliance is placed on them for allocating finite grades (e.g., within an achievement-based

grading system). Given there are limitations in the time available and the scope of activities undertaken by students, this will likely restrict the range of activities and situations in which the broad range of desirable or intended competences can be demonstrated. Furthermore, as stated in Chapter 1, a particular issue in the business internship is the large number of workplaces involved in any one semester. There is also a high turnover of workplaces each semester. Therefore, most potential workplace assessors are inexperienced in assessment, and limited resources are likely to make it impractical to provide any significant training. While the use of competency checklists may be impractical as a summative assessment method in a business internship course, they may well provide useful guidance on performance if the purpose of the assessment is primarily to assist student's formative development.

3.3.2.2 Artefacts

Artefacts are the “outcomes of students’ professional practice, including for examples sculptures, meals, computer packages, scientific rigs, vehicles, dental bridges and fashion garments” (Brown, 1999, p. 99). Such methods are reliant on a definite product being produced. Again, Brown outlines the importance of having clear criteria. To help interpretation of this, she suggests that previous examples of marked student work be made available so that implicit standards used in their judgement can be inferred. In the business internship the products of work produced by some students may be in a written form, such as a report. While criteria could be developed to assess this, variability in the work required of students, the expectations of workplace hosts, the level of support and mentoring provided by workplace peers, and the different cognitive and behavioural demands and difficulties placed on students, create conditions that make it extremely difficult to ensure *fairness*. The different work activities can also be related to *content validity* and *construct validity*, as it is likely that different domains of skills and competencies will be drawn upon by each student in their work (assuming such validity could be assured anyway which, as discussed earlier, is unlikely). In addition, unless other forms of assessment are involved, a single focus on the product of the work may send the wrong messages to students about what is important at work (e.g., the utilisation of a range of behavioural competencies). This potentially means *consequential validity* will be

low. Even if behavioural competencies were explicit in the criteria for completion of the work, unless ways are found of assessing these separately some caution is needed when inferring use of these in performance outcomes, particularly if the report or other type of artefact was largely produced through the use of cognitive competencies. Ultimately, the ‘luck of the draw’ of where students undertake their placement and the work they are required to do will impact on the demands placed on them and how the outcome of their work will be assessed. Thus generic criteria that fail to take account of the broad range of contextual influences will inevitably create the conditions for advantaging or disadvantaging a student.

3.3.2.3 Expert witness testimonials

Expert witness testimonials “comprise a statement written by a professional who has been acting in the capacity of mentor, line manager or supervisor of the student and who is able to provide testimony to the student’s ability” (Brown, 1999, p. 99). Such testimonials provide valuable evidence of individual performance and are often used as part of the evidential components contained in portfolios (discussed in Section 3.3.2.6). Sometimes such statements are written by students, which are subsequently verified by the expert/mentor. As with other methods of assessment discussed so far, how such statements are subsequently used for summative assessment purposes is of particular importance. For example, while such statements may be based on impartial expert, professional judgements, this will not necessarily address contextual influences that impacted on student performance. In addition, how such statements are interpreted for making subsequent assessment judgements (e.g., in allocating marks or grades) needs to be considered. For example, such statements taken on their own will not factor in the variability in student work activities, particularly the levels of complexity and difficulty involved. However, if used with other forms of evidence this may enhance validity, for example, as a form of triangulation.

3.3.2.4 Logs and diaries

Logs and diaries are common methods of assessment in which students record their learning on a regular basis. Both involve an element of reflection,

although logs tend to be simple checklists of events and activities that are factual in nature with minimal reflection. Diaries tend to be more narrative in form and that record students' descriptions of an activity and their responses to these. Holly (1997) considers that these involve a "personal and interpretive form of writing" (p. 6). Diaries therefore tend to include personal feelings and thoughts. However, unlike reflective journals, diaries tend not to have any structure and are more free-flowing. Because of this, Holly notes that the writing can be difficult to analyse, and therefore one could argue diaries would be an unsuitable method for summative purposes, although may well have formative development value.

3.3.2.5 *Reflective journals*

Reflective journals are more selective than diaries in the narrative used. Importantly, reflective journals emphasise reflection, rather than description. Reflection is a common assessment method used in cooperative education as it is seen to contribute to effective learning: "Students are able to translate their work experiences into learning outcomes and engage in deep level learning" (Weisz & Smith, 2005, p. 606). A more detailed discussion of reflective journals in relation to the theoretical principles underpinning reflective practice is provided in Chapter 3.

3.3.2.6 *Portfolios*

In their review of the literature on portfolios, McMullan et al. (2003) provide a summarised definition of a portfolio as a: "collection of evidence, usually in written form, of both the products and processes of learning. [The evidence] attests to achievement and personal and professional development, by providing critical analysis of its contents" (p. 288). Baume (2001) adds to this, noting that the collection of evidence will need to have some structure, including "labelled evidence" (p. 9). A key component of McMullan's definition is that it includes both *products* and *processes* of learning. In the context of cooperative education the products could be viewed as the performance or work produced by the student during their placement period, whereas the processes may be viewed as a snapshot of student's thinking and reflections at the time in that such learning "is both retrospective and prospective ... reflecting the current stage of

development and activity of the individual” (Brown, 1995, p. 3). Portfolio assessment has also been summarily described as “the evaluation of performance by means of a cumulative collection of student work” (Koretz, 1998, p. 309).

Increasingly, portfolios are being seen as multi-purpose tools that can be used for both formative development and summative assessment (Snadden, 2001; Zegwaard, Coll, & Hodges, 2003). In a review of the literature covering portfolio assessment, Johnston (2002) summarised a number of benefits in adopting a portfolio approach, including the potential to:

- Encourage students to take an active role in their own learning in the shape of formative assessment;
- Offer ‘authentic’ assessment which in turn is likely to provide predictive information about how a student will perform after moving beyond the assessment;
- Allow assessment of a wide range of learning activities, providing detailed evidence of these;
- Help students develop reflective capacity which will in turn enable them to continue learning after passing the immediate course; and
- Encourage students to take an active role in their own assessment in that they may be able to select which work goes in the portfolio.

An important and valuable feature of portfolio assessment is that it provides an evidential basis for achievement of authentic tasks in authentic settings (Klenowski, 2002) which is of particular relevance to cooperative education. Brown (1999) notes that: “Portfolios are widely used nowadays in higher education as a means to enable students to provide evidence of competence from their practice” (p. 98). Furthermore, the importance of reflective practice for professionals is well documented in the literature (Richert, 1990; Schön, 1983, 1987) and portfolio assessment is seen as a valuable tool to capture this form of learning (Barton & Collins, 1993; Borke, Michalec, Timmons, & Siddle, 1997; Snadden, 2001; Wolf, Whinery, & Hagerty, 1995), largely through the use of critical reflection (Knight & Yorke, 2003). Baume (2001) notes that use of critical reflection enables the contextualisation of portfolio evidence by:

Saying how and where and why it was produced, if this is not already evident from within the evidence or from the labelling

of the evidence. The critical reflection makes sense of the evidence, for the student assembling the portfolio and for the assessor. (p. 8)

The more holistic nature of portfolios in assessment is also noted by Baume and Yorke (2002, p. 7) who report that portfolios commonly include “evidence drawn from practice” and “reflective commentary”. Such reflective commentary also “provides students with a powerful tool to help them gain enriched meaning and construct new knowledge from their workplace experiences” (Zegwaard, et al., 2003, p. 13). In effect, the value of portfolio assessment in cooperative education is that it allows the student freedom to select and capture evidence of their performance from multiple sources, and express what they believe they have learned from their experiences (and therefore what they *know* and *understand*) in their own way. This includes making sense of the variety of evidential materials that they include in their portfolio. In addition to the need for students to be involved in collecting evidence of achievement, Paulson, Paulson and St Meyer (1991) suggest that students should also have significant input into the criteria for selection and judging the merit of this. In other words, they should have some involvement in the assessment of the evidence.

There is some debate in the literature concerning the validity of the evidence included in portfolios when used for summative purposes (Borko, Michalec, Timmons, & Siddle, 1997; Koretz, 1998; Snadden, 2001). A key issue of debate is that of *generalisability*, that is, the validity of the inferences that may be drawn from the selective evidence produced by the student. Even if we could produce empirically tested ways of ensuring *generalisable validity* in portfolio assessment, this may result in the loss of *consequential validity*. Portfolios are essentially a form of self-assessment that help students to engage in ‘deep learning’, have a greater self-awareness and become more effective learners (Brown & Knight, 1994) - all key attributes of *consequential validity* (Linn et al., 1991; Messick, 1989). Portfolios also provide the basis for the most valid and direct method of assessment because they require the student to demonstrate how they have met the required learning outcomes of the course (Baume, 2001; Knight & Yorke, 2003). Thus validity is enhanced by collecting a wide range of evidence that can be subsequently viewed from multiple perspectives. Bailey (1995) uses

the analogy of the legal system, where as much evidence is presented so as to make a judgement 'beyond reasonable doubt' or 'on the balance of probabilities'. Social scientists refer to the multiple, corroborating evidence approach as *triangulation* (Ary, Chester Jacobs, Razavieh, & Sorensen, 2006; Cohen, Manion, & Morrison 2000).

In relation to *fairness*, Baume (2001) suggests that “portfolios can be described and perceived as fair in that they allow the student to present their own selection and their own analysis of their own work, undertaken over a period of time and with access to information and other resources” (p. 12). However, portfolios can be potentially very time-consuming both for students in collating evidence of their achievements and for assessors in reading through the evidence. It has been noted above that the strength of portfolios is that they enable students to self-manage, and therefore self-select, the evidence to demonstrate what they have learned and achieved. This can also be viewed as a weakness in that students may choose to include a mountain of material such as copies of correspondence, meeting minutes, reflective journals, work produced, peer-testimonies and so forth. This potentially increases the workload for both the student and the reader (or assessor). To resolve this, Brown and Knight (1994) suggest that guidance and criteria be provided on the selection and volume of material that can be included. In addition, the authors suggest inclusion of “critical account of the contents – more than an annotated contents list - which provides an opportunity for the student to contextualise the work and demonstrate the learning achieved” (p. 83). Essentially, *efficiency/economy* in validity is an important factor and it behoves teaching staff to pay particular attention to the guidance that is given on their structure and composition. Brown and Knight (1994) also suggest that some form of analytical commentary be provided to draw the contents together and to assist the reader. Baume (2001) suggests that portfolios are no different to other assessment methods in that “planning any assessment method means balancing the quality of the assessment judgement that can be made with the time and effort applied to the assessment” (p. 13).

Portfolio assessment must also consider the tricky issue of *intra-judge reliability*. Each student will have a unique learning experience and therefore will produce unique portfolios. Gonczi, as cited by Gray (2001, p. 10), argues that a

variety of assessment methods and tools need to be used in work-based learning to minimise the practical limitations of intra-judge reliability. A way of ensuring greater consistency in marking is to ensure that the criteria and evidence required is sufficiently broad in scope. For instance, the criteria might include; the depth of learning that has taken place (e.g., as indicated in the student's critical reflections), whether the learning has been appropriately contextualised within the student's work placement, that appropriate connections have been made between theory and practice, and the quality of the student's personal learning goals and the sufficiency of the evidence produced to indicate the extent of their achievement.

In their review of reliability studies of portfolios, Baume and Yorke (2002) note that "respectable levels of inter-rater agreement [were] achieved in circumstances when there was a template of defined outcomes or criteria against which to judge" (p. 17). They later conclude that, "of particular importance are the need for explicitness regarding the expectations placed on the assessor, and the need to ensure that all who are party to the assessment practice share an awareness of what is expected" (p. 24). Baume (2001) also suggests that "to maximise reliability of overall assessment, [there is a need to] minimise the number of essential outcomes" (p. 16).

An important issue with portfolios is in setting the range of possible assessment outcomes. For example, assuming a criterion-based approach is used, whether to have a simple pass/fail grading system or to have an achievement-based system with different gradations of achievement. Baume (2001, p. 18) suggests that a key problem with an achievement-based approach is in gaining agreement over "what qualities differentiate between performance at one level and another". He suggests that the "best use of assessor time is surely to put time and effort into defining the boundary between the two most important categories – pass and fail" (p. 18). However, he acknowledges that a category of "outstanding performance" may wish to be articulated in addition to a straight pass "for those students for whom outstanding performance is a goal ... [and that] the criteria for outstanding should include and expand on those for a pass" (p. 18).

Portfolio assessment must also consider the issue of *authenticity* (i.e., the work produced is that of the student). In portfolio assessment much of the work being authenticated will be the unique learning experiences of each student. So how do we know that the information provided is giving us a true picture of what the student has actually learned or even should have learned? There are no easy answers here. Gray (2001, p. 12) suggests that a way of enhancing authenticity in cooperative education programmes is to ensure that all written work is moderated by another member of the course (co-op) team, provide an external examiner (or monitor) with the written work, include oral testing (i.e., have the student defend their work/learning), and to involve the employer or employer mentor in authenticating the work. Clearly, the level of authenticity sought will need to be weighed against the practicality and manageability of achieving it, especially the resource constraints.

3.3.2.7 *Presentations and oral assessments*

Presentations are seen as useful for work placements as they can be used by individuals or groups to present the outcomes of their work in a way that provides “insights to students’ approaches and values allowing the student to interpret their experiences of professional work in ways that are meaningful to them” (Brown, 1999, p. 100). Depending upon how they are used, these also may complement other methods of assessment such as reflective journals, portfolios and oral assessments. For example, if used with *oral assessment* statements made by students can be subject to interrogation and verification, thereby strengthening the evidential base and increasing reliability of the judgements made. Joughin (1999) identifies a range of dimensions involved in oral assessment. Relevant aspects of these that might be applied to cooperative education are briefly discussed here.

Of key importance is the intended purpose of the oral assessment. It may be used to assess oral competence as part of the desirable workplace competencies. This may be either considered to be the responsibility of the workplace assessor who assesses competence in the context of the work undertaken by student and/or be assessed as part of an end of placement presentation (in which case workplace oral competence in a general sense can be

inferred from the presentation). Another use of oral assessment is through *interaction*. For example, at the end of the placement the academic assessor may use this by way of an individual interview with the student, thereby enabling the assessor and the student to discuss what the student has learned. For example, this may be used to confirm written reflections made or to confirm elements of evidence supplied in a portfolio. A further dimension of oral assessment is how it is structured. A closed structure may typically be driven by pre-determined questions in a set sequence, whereas an open structure will typically involve a looser approach intended to create the conditions for presenting ideas in a more free-flowing way. The final issue with oral assessment is who is judging it. In the context of cooperative education this may involve the workplace assessor, academic assessors and/or student peers. Each group can contribute in different ways to this, depending on what is being assessed, the clarity and understanding of the criteria to be used, and how this relates to other aspects of assessment involved.

3.3.2.8 *Learning contracts*

Other similar terms are used in the literature for describing learning contracts, such as: contract agreements; learning agreements; and negotiable learning agreements. The term used here will be learning contracts. A possible influence in the use of learning contracts was the work of Schön (1987), who argued that a relationship built around learning requires an explicit or implicit contract between the coach (e.g., workplace supervisor or mentor) and the student, which specifies how each is accountable to the other. Brown (1999) describes a learning contract as being “used to enable students to be involved in setting their own goals and respond to changing learning situations” (p. 101). Brown describes four stages of development in producing learning contracts. First students, individually or in groups, consider their own levels of competency through some form of self-assessment (e.g., from a pro-forma presented to them that may include a range of relevant competencies). This is then used by students to determine those competencies they wish to focus on (e.g., during the work placement period). Third, for each competency students will be expected to identify how they can improve on these in order to meet any prescribed learning outcomes (i.e., the strategies they will employ). Finally, these actions can be

cycled over a period of time, with students renegotiating these depending upon whether they have met or exceeded them, or were overambitious in the original goal setting. Brown views learning contracts as “an extremely valuable means of involving students in recognising their own expertise and helping them to set realistic self-managed targets for professional practice” (p. 101).

Race (1992) indicates a preference for the term *negotiable learning agreement*, as this recognises ownership issues and flexibility to make changes. He also sees this as enabling a shift in power and control back to the student: “Learning is done by people, not to people. Negotiated learning agreements are a way of opening up to you various forms of control over your learning” (p. 52). Paul and Shaw (1992, pp. 8-10) identify a number of benefits of learning contracts: providing an enabling framework for discovery; providing flexibility by acknowledging individual learner differences; can ‘turn students on to learning’; can encourage students to take responsibility for and be involved in creating their own learning; encouraging deeper and more permanent learning; allowing greater choice for students in determining what and how they learn; exposing students to a wider variety of learning activities and resources than traditional learning methods; enabling students to develop a wide range of transferable/behavioural skills; and reducing dependence upon teaching staff. The authors acknowledge that there is a wide range of styles and formats used in learning contracts and how they may be used.

Gray (2001) reports that in the context of work-based learning a learning contract will typically include some or all of the following: the learner’s personal and professional objectives (or goals); any potential work-based projects or activities agreed with the employer; any potential claim on acknowledging prior learning (APL); the specification of an academically coherent set of modules or learning opportunities, how the learning objectives will be addressed; an agreed timetable; evidence of support and resources that can be accessed at work and in the university; evidence of support as a learner within an organisational context (e.g., from a sponsor, mentor or line manager).

Like other forms of alternative assessment, some caution is needed in how learning contracts are used. Brown and Baume (1992) suggest a number of issues that require attention, including: the nature of learning contracts being too radical or ambitious for academic staff and students; arguments of process versus content benefits emerge; students used to a more dependent, passive, structured learning environment can experience difficulties in coping with a more self-determined, active, independent style of learning and reject this accordingly (therefore relevant student and staff orientation/preparation is critical to its success); inexperience can lead to contracts being too ambitious or challenging, adding to student concerns and workload pressures; success requires a change in attitudes and values (which typically will be embedded in learning and assessment methods that staff and students are used to).

There is little information in the literature that attends to the relationship between learning contracts and assessment. This is perhaps because learning contracts tend not to be the objects of assessment. Rather, it will be the learning goals and any workplace projects and/or activities referred to in the contract that is the assessable component. It may be that the type of evidence to demonstrate achievement of any personal and professional goals and work outcomes would be specified in the learning contract. Similarly, one could see how learning contracts and related evidence of achievements might be included within a student portfolio.

3.3.3 Authentic assessment approaches

The choices made on assessment approaches must consider the likely impact they will have on student learning and development. Traditionally, curricula are delivered in discrete and often independent modules or papers. This often leads academics to articulate “very specific learning outcomes and predetermine and standardise instructional strategies that will lead to these outcomes” (Van Gyn & Grove-White, 2004, p. 29). Such instructional strategies generally involve the teacher setting the assessment task or activity, providing the related criteria and standards, and subsequently judging student performance against these. As noted earlier in the chapter, because the student is a passive partner in such a process the message derived from this will be that assessment of performance and learning is something that is performed by others (Boud, 2000).

Whether conscious or otherwise, Brown and Glasner (1999, p. 157) consider that choosing to assess in this way is an exercise of power: “Assessment is usually about one group of people (teachers) making judgements about the performance or work of another group of people (students); it is an exercise of power”. They point out that use of such power can inhibit the student “from making judgements about their own performance” which can potentially reduce their “ability to think for themselves ... or to evaluate what they learn ... and continue to learn when their college days are over” (p. 157).

Boud and Falchikov (2005) argue that if assessment is to support long-term learning it needs to “be judged first in terms of its consequences for student learning and second in terms of its effectiveness as a measure of achievement” (p. 38). Such a view is supported by students themselves, as McDowell and Sambell (1999) point out, “students appreciate assessment tasks which help them to develop knowledge, skills and abilities which they can take with them and use in other contexts such as in their subsequent careers” (p. 81). Brew (1999) adds that given the impact of the internet “knowledge is becoming fluid, viewed as a product of communication and interpretation”, and that changes are needed with an “emphasis on life-long learning, on discriminating good information from bad and for practice as a professional” (p. 162).

In the context of cooperative education, teaching staff are at ‘arm’s-length’ to the work performance of the student. They are thus reliant on the views of others in order to determine the quality of students’ work performance and, arguably, the learning students derive from their experiences. Essentially, taking a more inclusive approach to assessment by involving others in the assessment of student performance and learning is not only valuable for students, but may also enhance validity and reliability. Two alternative approaches for involving students in assessment - self-assessment and peer-assessment - are discussed in this section. In addition, given the nature of cooperative education, the role of the academic and workplace host (employer) is considered briefly.

3.3.3.1 *Self-assessment*

There are a number of reasons or benefits for using self-assessment in higher education. It has been suggested that it encourages deeper learning in students (Gipps, 1994), is a valuable transferable skill of direct relevance to the workplace and to professional practice (Boud, 1995a; Brown & Knight, 1995; Falchikov, 1986, 1988), and is a valuable aid to learning beyond higher education (Taras, 2001) that contributes to students' skills as lifelong assessors (Boud, 2000). Brown and Knight (1995) note that it is also an exercise in self-development and it can motivate students to learn. In addition, McDowell and Sambell (1999) identify other reasons for introducing self-assessment. Like the other benefits mentioned, these are also suggested to apply to peer-assessment:

Involving students in self-assessment and/or peer-assessment capitalises on the personal investment and interest which many students display in relation to innovative assessment ... [These forms of assessment] are also congruent with the aims of giving students more freedom, responsibility and autonomy which many lecturers implementing innovative assessment espouse. (p. 79)

Boud (1995a) defines self-assessment as “the involvement of students in identifying standards and/or criteria to apply to their work and making judgements about the extent to which they have met these criteria and standards” (p. 5). Boud notes that self-assessment is no different to other approaches to assessment in that it requires the assessor to have knowledge and understanding of the criteria and standards that will be used, and also to have the “capacity to make judgements about whether or not the work involved does or does not meet these standards” (p. 11). The latter point of capacity is related to training and experience. Ross (2006) argues that in addition to involving students in the setting of the criteria and standards, the benefits of self-assessment are more likely to occur if they include “teacher-student dialogue [that] focuses on evidence for judgements, and self-assessments [that] contribute to a grade (by students alone or in collaboration with teachers)” (p. 2). While students are experienced in responding to assessment tasks (including related criteria and standards) set by others, typically they do not have the knowledge and experience of generating such tasks themselves nor in making judgements on their performance of these tasks. Furthermore, if students are to be prepared for being lifelong assessors, it needs to be recognised that self-

assessment in the workplace will be very different to an educational setting, as Boud and Falchikov (2006) point out:

Graduates in the workforce will not in general be taking examinations or writing academic essays. They will be puzzling over what counts as good work and how they will be able to discern whether they are producing it ... the workplace task has many additional elements, and may involve greater risks. (p. 403)

There are different forms of self-assessment, depending upon the purpose. These may contribute directly to summative assessment or indirectly through formative assessment. Boud (1995a) identifies a number of purposes of self-assessment, most of which could be categorised as being for formative assessment purposes. However, the following two purposes, summarised here, could be said to relate directly to summative assessment (it is recognised that in many cases they are also likely to be contributing to formative development needs):

- *As a substitute for other forms of assessment* (this may be used independently of other assessments and moderated by others, or combined with assessments by peers or others)
- *To review achievements as a prelude to recognition of prior learning* (when applying for such recognition students may be required to produce evidence of their prior learning in the form of a portfolio, which is then subsequently checked or moderated, by an academic. The outcome usually being a credit for one or more course modules).

The latter purpose might be seen also in relation to the earlier discussion on portfolio assessment. By gathering evidence of their learning from the workplace students are engaging in a form of self-assessment. As noted earlier in this chapter, while the focus of this thesis is on summative assessment, it is recognised that this cannot be isolated from the teaching and learning practices involved. In particular, there are many formative aspects of self-assessment that, if introduced, may contribute directly to students' preparation for summative use of self-assessment in a cooperative education programme. The following relevant formative examples are summarised from Boud (1995a):

- *Individual self-monitoring* (where students monitor their progress against self-determined goals or assessment tasks);

- *Learning activity to improve professional practice* (this can be used in a work setting through reflection-in-action and through seeking peer and employer feedback); and
- *Self-knowledge and self-understanding* (this can be achieved through reflecting-on-action which enables the student to make sense of their experiences).

Brew (1999, p. 160) identifies a further aspect of formative assessment that could also be said to have value in preparing students for summative assessment, which she refers to as *self-rating* (where students use a variety of instruments to rate their own personality, learning styles or personal preferences). One could add to this list instruments that are used to self-rate workplace competencies. As discussed in Section 2.2, a key aspect of formative assessment is that it involves the use of feedback. This formal or informal feedback then informs student understanding of their performance. Sadler (2005) suggests that self-assessment (i.e., assessment by the students of their work using comparable cognitive, intellectual and pedagogic processes to that of the tutor) is required *before* the feedback loop is completed.

Self-assessment can also include self-marking (also referred to as self-grading). Brown and Knight (1995) refer to self-grading as “the marking of one’s own work against a set of criteria and potential outcomes provided by a third person, usually the tutor” (p. 52). Of course, this definition assumes that students are not involved in setting the criteria, which is contrary to the earlier definition of self-assessment given by Boud (1995a). When considering issues of validity and reliability, Ross (2006, p. 3) argues that “validity in self-assessment typically means agreement with teacher judgements (considered to be the gold standard) or peer-rankings (usually the mean of multiple judges which tend to be more accurate than the results from a single judge)”. In their review of the literature on cases involving self-grading, Boud and Falchikov (1989, 1995) concluded that:

- Higher achieving students tended to be realistic or underestimate their performance, whereas low achieving students tended to overestimate their performance;
- Students in later years of courses tend to become more accurate when rating their performance;

- There was inconclusive evidence of any gender differences; and
- In five of the seven studies where the marks count (i.e., for summative purposes), students tended to overrate themselves.

In relation to work-based learning, as mentioned earlier, Benett (1993) asserts that self-assessment can be valid if students have internalised the performance standards in the workplace. This can be achieved if students enter into regular dialogue with the employer and relevant work-peers to ascertain the standards being used. However, while students' self-assessment, strengthened by their internalisation of workplace performance standards, may create the basis for *concurrent validity* the issue of *construct validity* can remain a problem. According to Benett this is because employers' "ego-defensiveness and their stereotyping of students' characteristics, motivation and role" (p. 85) will inevitably mean a subjective element will be involved in the determination of workplace standards applied to the student. In essence, there can be no absolute 'objectivity' in the setting of the standards or in the subsequent assessment of performance against them. They will always be influenced by the beliefs, views, feelings, values and biases of the people involved in making such decisions, which may differ according to the time, place, situation and context in which they are made. For this reason Benett (1993) suggests that:

It is important that students interact genuinely with their workplace supervisors [employers] and disclose to them their thoughts, feelings and intentions about their work. Such interactions will help workplace supervisors to 'verify' that the students' self-assessments meet the necessary criteria. Indeed, it is through such interactions that the students' self-assessments are likely to approximate the workplace supervisors' assessments. (p. 85)

In relation to reliability, Ross (2006) defines reliability in self-assessment as "meaning the consistency of the scores produced by a measurement tool" (p. 2). In a review of research evidence on the topic he concluded that "the evidence in support of the reliability of self-assessment is positive in terms of consistency across tasks, across items, and over short time periods ... There was less consistency over longer time periods" (p. 3).

Finally, when implementing self-assessment, Boud (1995a) suggests that a number of factors influence its success. These can be summarised as:

- Gain commitment (identify and address any student concerns – recognise this may be the first time they have encountered this form of assessment);
- Provide a clear process (rationale for self-assessment; explicit procedures; reassurance of a safe environment to ensure honesty; confidence that all students will be doing likewise & that collusion/cheating will be detected/discouraged); and
- Recognise the consequences for colleagues (introduction of self-assessment in one course may result in student pressure on other staff to introduce it into their courses. While personal fears and politics may discourage openness to colleagues, it is suggested that introduction be preceded by articulation of a clear rationale for how it supports teaching and learning).

3.3.3.2 Peer-assessment

Many of the reasons for introducing peer-assessment, and the benefits and issues involved, are very similar to those of self-assessment. These are not repeated here; instead attention is given to other aspects of the literature that focus on peer-assessment and that may be of relevance to cooperative education. There is strong evidence in the literature that peer-assessment contributes to the promotion of learning (Boud, 1988; Falchikov, 1986) and also increases students' confidence (Falchikov, 1995a, 1995b). In addition, peer-assessment can introduce students to a broader range of solutions to problems (Gibbs, 1981), and can have a positive impact on students' critical appraisal and evaluative skills (Jacques, 1991).

Brew (1999, p. 160) views peer-assessment as involving “students making judgements about, or commenting upon, each other’s work. Either individuals may comment on the work of other individuals or groups of their peers, or groups may comment on the work of individuals or groups”. She also points out that peer-assessment can “refer to both peer-marking and peer-feedback”. Typically, when used for summative assessment purposes, peer-assessment is undertaken in groups, and peer-assessment involves each group member in the assessment of their group peers, largely in determining the individual contribution (Johnston &

Miles, 2004). Use of peer-assessment in groups is often undertaken because “the subject coordinator has limited opportunities to observe and assess the complex group and teamwork dynamics that are taking place” (Raban & Litchfield, 2007, p. 34). Using peer-assessment in this way has been described by Raban and Litchfield as being controversial due to the accuracy of students’ assessments. They cite the work of Kennedy (2005) who says that students’ inexperience can produce unreliable results. In addition, students are reluctant to exert power over their peers by summatively assessing their work (Falchikov, 1986). Brew (1999) also notes that students may be suspicious that peer-assessment has been introduced to reduce teacher workloads, rather than enhance their learning. In addition, she identifies that students may take a dislike to the process or “have concerns about whether they will have sufficient knowledge or skill” (p. 161) to undertake this. While not commented on by Brew, it is likely that such suspicions and concerns will also apply to self-assessment

Brown and Knight (1995) view peer-assessment as being of value in developing students’ assessment skills in order that they can develop the more complex skills required for self-assessment. In effect, the strength of peer-assessment is seen in its formative value. Falchikov (1994, 1995b) also considers that a key educational strength of peer-assessment is in the formative development associated with peer-feedback.

In terms of the validity and reliability of peer-assessment, in a meta-analysis of 48 quantitative peer-assessment studies Falchikov and Goldsmith (2000) conclude that:

Peer-assessments were found to resemble more closely teacher assessments when global judgements based on well understood criteria are used rather than when marking involves assessing several individual dimensions. Similarly, peer-assessments better resemble faculty assessments when academic products and processes, rather than professional practice, are being rated. (p. 287)

As with self-assessment, Brew (1999) suggests that introduction of peer-assessment needs to be considered carefully, and Sambell et al. (1997) note that students are “often initially worried about passing judgements on their friends. Some felt threatened or unnerved by their insights into the apparent subjectivity of

assessment, or failed to develop confidence in their ability to act fairly as an assessor themselves” (p. 367). In an action research study of peer-assessment, Sivan (2000) concludes that it is important to introduce this carefully and gradually, preferably with student involvement particularly in setting criteria. The latter was seen to be “an essential strategy to maximise the potential of peer-assessment for developing students’ sense of ownership and control of their work and to allow them to exercise responsibility for their learning” (p. 207). Arguably, the suggestions made earlier by Boud (2000) for the successful implementation of self-assessment will equally apply for peer-assessment, that is: plan on ways of gaining student commitment; provide a clear process (e.g., with a clear rationale and set of procedures); and consider carefully the consequential impact on other teachers.

In the context of cooperative education, peers may involve more than other students, such as workplace assessors. This is discussed in the following section.

3.3.3.3 The roles of academic and workplace hosts in assessment

In many cases an academic assessor of workplace learning has access to direct evidence of student performance through tangible documents and reports. However, performance in cooperative education programmes has been described here more widely, and includes a range of behavioural competencies that cannot always be inferred or generalised from the more tangible outputs. It is argued here that academics are not in a position to make performance judgements on those criteria that are based on competencies that require direct evidence in workplace performance. Given the situated-nature of workplace performance, it will be important to involve the employer (workplace host) in assessment. The level of involvement will be dependent upon the design and detail of the criteria, guidelines and training provided. The workplace supervisor can provide a valuable and context-driven view of student performance. Arguably, they are also best placed to provide an independent appraisal of students’ performance. Gray (2001) suggests that workplace hosts are able to verify aspects of learning outcomes if made explicit to them, thereby enhancing validity and reliability.

The input and involvement of the student (e.g., in self-assessment) and the academic will further help to strengthen authenticity in workplace learning and performance, and therefore its validity and reliability. Essentially, this will require a shift of emphasis for the academic, with their role becoming multi-dimensional and collaborative in nature. For example, this may include being a trainer (e.g., helping students to maximise their learning and engagement in self-assessment, and helping workplace hosts to support students during their placement), being a moderator (ensuring judgements made and evidence presented are fair and adequate), and being an interpreter (relating dialogue and multiple judgements to a summative outcome). This is consistent with the views of Boud (1995b) who argues that good assessment practices need to ensure that “the process of assessment has a directly beneficial influence on the learning process” which will require academics to become “designers of multi-faceted assessment strategies, managers of assessment processes and consultants assisting students in the interpretation of rich information about their learning” (p. 42).

3.3.4 Summary of alternative assessment methods and approaches

This section has reviewed a broad range of alternative assessment methods and approaches that attempt to overcome the perceived deficiencies of traditional forms of assessment. Particular attention has been given to those methods that consider the breadth of learning that takes place in cooperative education, and that take account of the complexities and contextual influences involved. To enhance validity and reliability a combination of these methods can be used, in order to strengthen the evidential base, for example, by utilising portfolios, reflective journals and oral presentations.

Traditional approaches to assessment involve the teacher determining the required learning, the related assessment tasks and criteria, the performance of the student, and the grade awarded. Such approaches mean the student takes a passive, rather than active, role in assessment; counter to the need for sustainable assessment practices that help prepare students for lifelong learning beyond the academy (as described in Chapter 2). The nature of workplace learning is such that the teacher is typically at arm’s-length to the learning activities of the students and their workplace performance. Thus a more inclusive approach to

assessment, involving students (and others), has the potential to enhance validity and reliability, and at the same time enabling students to take a more active role in assessment. *Self-assessment* and *peer-assessment* are two approaches that enable increased involvement of students, can facilitate deeper learning, and can contribute to students' development as lifelong assessors.

The issue of the role of academics and workplace hosts was considered in relation to how each might contribute to the assessment process. Because of the variability of work projects and the contextual influences of the workplace on student performance, this may require a change in the academic's traditional role as the sole arbiter of assessment, to a more collaborative role. In addition, as the workplace supervisor is best placed to provide a context-informed appraisal of students' performance, it may be beneficial for them to have some role in the assessment process.

Finally, whatever assessment methods and approaches are employed, attention will need to be given to the contextual factors that inform their utility and acceptability. In addition, such approaches must ensure they meet various obligations of 'double duty' as well as paying attention to a range of factors that will help minimise the inherent risks involved when introducing new forms of assessment. As McDowell and Sambell (1999) note: "Evidence from students shows that the benefits of innovative assessment are potentially very significant. However, the full potential is not always attained" (p. 80).

3.4 Chapter summary

Attention in this chapter has been given to two key principles that are expected to underpin all good assessment - validity and reliability. Validity is concerned with what is being assessed is in congruence with what is intended to be assessed, and reliability is concerned with the consistency of the assessment methods to produce the same or similar result. Validity was viewed as being problematic when performance and learning occurs in higher-level, complex, workplace situations. For this reason, it was suggested that a more 'common sense' approach be taken to content validity and construct validity, in order to take cognisance of the situated nature of work and the contextual factors involved. In

addition, greater attention may need to be given to other forms of validity, such as: consequential validity (impact of the assessment on learning), concurrent validity (having an independent assessment of the performance), fairness (ensuring assessment does not advantage or disadvantage an individual student or group of students), systemic validity (improving those practices that contribute to the learning being assessed), and efficiency/economy (the assessment practices are affordable and sustainable). Reliability was also considered to be problematic in cooperative education. Possible ways to enhance reliability included viewing this as a 'goodness of fit' exercise, seeking multiple views of performance, and involving students in regular dialogue, with academic and workplace hosts, in order to address any uncertainties. It was viewed that where there are conflicts between validity and reliability, the impact on students' formative development and preparation for professional practice should be prioritised.

The literature also suggests that traditional assessment methods and approaches may not be meeting the learning needs of students. This is particularly so when student learning occurs in a workplace setting, which requires taking a broader view of learning beyond the constraints of a prescribed curriculum. Such reevaluation has led to alternative and what have been described as more authentic forms of assessment being proposed. A variety of alternative methods were outlined, many of which when used together may provide valuable and complementary contributions to learning. Self-assessment and peer-assessment approaches were viewed as effective ways of engaging students in their learning, while contributing to their development as lifelong assessors. Such approaches may enable students to collaborate with academic and workplace hosts, to enhance the validity and reliability of the assessment.

So far the review of the literature has focused on different aspects of assessment, and how this relates to cooperative education. While the relationship between assessment and learning has been a feature of much of the literature discussion, it has been considered largely without reference to the nature of, and theoretical principles underpinning, learning. Therefore attention is given in the next chapter to those theories of learning of relevance to cooperative education, and how these inform assessment practices.

Chapter 4

Literature Review: Theories of learning informing assessment in cooperative education

4.1 Chapter outline

The review of the literature discussed in the preceding two chapters has considered important principles of assessment in relation to cooperative education. These principles include the need to attend to the different purposes of assessment (formative, summative and sustainable), to ensure performance criteria and standards are understood, that competencies of relevance to the workplace are a key feature of the assessment, and that issues of validity and reliability are adequately addressed. These principles were also considered in relation to alternative assessment methods and approaches that may be more appropriate in authentic situations such as cooperative education. By attending to these principles, it was noted that assessment would also be contributing to its ‘double duty’ obligations, particularly in attending both to the current and future learning needs of students.

Because of the inter-relationship between assessment and learning, it was argued in Chapter 2 that any study of assessment must also consider the nature of learning. As Eames (2003) notes: “It is important to educators that learning through work experience is understood so that it can be appropriately assessed” (p. 23). This chapter examines a number of theories of learning that help inform this thesis. It is not the intention to consider all theories of learning here, rather attention is given to those theories that are commonly considered to be of particular relevance to cooperative education (see Eames & Cates, 2004; Linn, 2004; Van Gyn & Grove-White, 2004), and how these inform assessment practices. Section 4.2 considers the historical influence of behaviourism on learning and how this still influences assessment practices today. Section 4.3 discusses cognition and learning, with particular attention given to metacognition. In Section 4.4, attention is given to constructivism and learning. Section 4.5 discusses experiential learning theory, which then leads onto a discussion of

reflective practice (Section 4.6). Finally, in Section 4.7 attention is given to the situated, social and cultural dimension of work-based learning, and their implications for assessment in cooperative education.

4.2 Behaviourism

A behavioural view of learning is concerned with how the external environment influences and modifies human behaviour (Mowrer & Klein, 1989). Behaviourist theories originated in pre-industrial times, influenced by the philosophers Frances Bacon and John Locke; the latter viewing the mind as a passive, blank slate inscribed through its experiences (Van Gyn & Grove-White, 2004). This view of learning influenced the work of post-industrial psychologists John Watson and Edward Thorndike who developed the stimulus-response model of learning as, for example, outlined by Skinner (1954) and Merriam and Caffarella (1999). Briefly, this entails connecting a specific response (from the learner) to a specific stimulus (provided by the teacher), enabling identification of those stimuli that maximise learning. This theory later led to the ‘building block’ approach to learning, outlined by Kliebard (1995). The basic notion of these theories is that competence can be achieved by breaking down tasks and activities into their component parts or small steps. Achievement of each step is acknowledged and reinforced, providing the motivation to move to the next step. Miller and Seller (1990) note that this view of learning influenced a *transmission* pedagogy in education in which curricula knowledge is held by the expert teacher who passes on (or transmits) this knowledge to the student; analogous to pouring knowledge into the ‘empty vessel’ of the student’s mind. This approach led to “content reproduction, combined with the assumption that learning is similar for all students [and therefore] permits direct comparison of student performance and fosters academic comparison” (Van Gyn & Grove-White, 2004, p. 29).

Shepard (2000) argues that the atomised, deconstructed, behaviourist approach to learning also led to the separation of instruction and formal (summative) assessment, with the latter being an objective exercise in determining whether the learner was ready to move to the next stage of instruction. As noted in the discussion of competency in Chapter 2, this ‘building block’ approach to learning led to a focus on the sub-components of student performance, rather than

viewing performance as a whole (Jones, 1999) and, in the case of work-based learning, ignoring the contextual complexities inherent in a practice setting (Gonczi, 1994; Wolf, 1995). Thus subjective, holistic forms of summative assessment linked to the individual learner were seen as being unfair because “to ensure fairness, teachers believed that assessments had to be *uniformly* [original emphasis] administered, so they were reluctant to conduct more intensive, individualised assessments” (Shephard, 2000, p. 5). From such uniform approaches to assessment it follows that many of the issues of validity and reliability discussed in Chapter 3 had their origins in the behaviourist movement, based on the assumption of a fixed curricula in which outcomes or performance expectations would be the same for each student.

It is likely that in education, belief systems influence the theories of learning adopted by academics. For example, academics in higher education are likely to have completed much of their earlier education within an environment where positivist influences on theories of learning prevailed, particularly behaviourism. As Shepard (2000) notes, these influences included “hereditarian theories of individual differences and associationist and behavioural theories of learning. These psychological theories were, in turn, served by scientific measurement of ability and achievement” (p. 4). While a behaviourist approach to learning is not used in this thesis, it is acknowledged that this may influence the views of academic staff involved in the supervision of students in the business internship. The implications of this for the intervention used in this study are discussed in Chapter 6.

4.3 Cognition and learning

The main criticism of the behaviourist approach to learning was that it took a simplistic and “mechanistic view of humans controlled by their environment” (Bruning, Shraw, & Renning, 1999, p. 5). In other words, behaviourism focused on learners reacting to environmental stimuli, rather than viewing learners as agents of their own learning. Resnick and Resnick (1993) also argue that the ‘building-block’ approach to learning made (incorrect) assumptions about how the higher level, complex skills could be developed. They argue that such a linear approach is contrary to the teaching and assessment of

thinking skills and problem solving for complex, unstructured problems (e.g., like those that students experience in cooperative education). Shepard (2000) notes that growing dissatisfaction with behaviourism led to greater attention being paid to psychology and how the mind works: “In contrast to past, mechanistic theories of knowledge acquisition, we now understand that learning is an active process of mental construction and mental processing” (p. 6). This view of learning meant that educational assessment practices began focusing on levels of understanding and complexity of understanding, rather than recognition or recall of facts, the latter generally associated with shallow forms of learning (Biggs, 2003).

4.3.1 Cognition as information processing

An early approach to considering learning from a psychological perspective was evident in the 1960s with the introduction of the computer, which led to considering learning and the human mind in a different way (Baars, 1986). The computer was used as a metaphor for the human mind, with learning viewed as information processing; the human as a recipient of information, rather than a recipient of rewards and punishment (Mayer, 1996). This metaphor was instrumental in Gagne’s model of information processing (Gagne, 1977). Gagne’s model focused on the internal and external conditions that influence learning. In brief, stimuli or data from the environment triggers the mind’s senses and are stored in short-term memory. A process of encoding then occurs by transmitting this raw data into long-term memory. This transfer involves relating the new data to an existing schema (held in long term memory) in order for the mind to make meaning or sense of the new data. If coded and stored appropriately, this can later be retrieved by the learner in order to respond to a new situation (response generator) by taking appropriate action; for example, in solving a new problem. Overarching cognitive strategies and expectancy structures determine how the learner encodes the external stimuli and messages and how they subsequently retrieve the information. These strategies (learning styles) and structures (interpretation of and value attributed to the information) are individual to the learner and affect how they learn. In relating this theory to cooperative education, Eames and Cates (2004) suggest that students focus on those messages that they deem to be most important to them in their future careers. Reflective skills are considered to be valuable for students, enabling them to discern the important

from the not-so-important information that they are exposed to during their placement. Furthermore, co-op students are in a position to see the connections and differences between classroom-taught theories and workplace practices, and be able to enhance their long term memories in a way that assists their future problem-solving abilities. In relation to assessment, how students are prepared for a work placement can influence what information they deem to be important. A critical aspect of this preparation is how the learning is assessed. What we assess reflects our beliefs about education and what we value in student learning (Knight, 1995; Rowntree, 1987), and if aspects of the work (and related information) are not explicit components of the assessment they are seen by students as unimportant (Sadler, 1989).

The information processing model went through various stages of development during the 1960s and 1970s. Of note was the modal model which introduced the concept of sensory memory (Atkinson & Shifrin, 1968). This sensory memory acts as an initial area of processing incoming stimuli which is then passed into working (short-term) memory for interaction with long-term memory. This latter interaction involving retrieval and encoding is viewed as a continuous loop involving pattern recognition (between new stimuli and a body of knowledge held in long term memory). According to Bruning et al. (1999) a key feature of this development is that sensory memory is viewed as being affected by “short-term, long-term and metacognitive processes simultaneously” (p. 18). Bruning et al. also noted that views of cognition linked to the information processing metaphor then began to change as the notion of *storage* shifted to a *processing* emphasis in which *working memory* and metacognition took on greater importance.

4.3.2 Metacognition

The notion of metacognition originates from the work of Flavell (1976) who defines metacognition as:

One's knowledge concerning one's own cognitive processes or anything related to them ... For example, I am engaging in metacognition if I notice that I am having more trouble learning A than B; if it strikes me that I should double check C before accepting it as fact. (p. 232)

Metacognitive knowledge involves three inter-related components: *declarative knowledge*, *procedural knowledge*, and *conditional knowledge* (Biggs, 2003; Paris, Lipson, & Wixson, 1983). Declarative knowledge is generally content-focused and includes what is already known about the particular knowledge domain (Biggs, 2003). It also incorporates the structure of the tasks and what the learner knows about themselves, their abilities and characteristics (Paris et al., 1983). Procedural knowledge is information held about how to do things, including the strategies and skills needed to do things (Biggs, 2003; Paris et al., 1983). It is also described by Biggs as having a functioning knowledge without a conceptual framework. In other words, procedural knowledge gives an individual an understanding of the possible procedures to apply, but not the practical knowledge needed to know which particular skills and strategies to use in a specific situation. Conditional knowledge is achieved when declarative knowledge and procedural knowledge are combined effectively. Once achieved, this enables the individual to know where, when, how, why and under what conditions a particular action or approach should be used (Biggs, 2003; Paris et al., 1983). Sternberg and Wagner (1986) refer to a similar concept called *practical intelligence*, which enables individuals to ‘know how’ to do things in practice, rather than in theory. This type of practical knowledge also has been associated with using *intuition* (Schön, 1983; Solomon, 1994) and *artistry* (Argyris & Schön, 1978; Schön, 1987) in solving problems. Polanyi (1958, 1967) views this in a similar way to *tacit knowing*.

In education, Biggs (2003) argues that all three components of metacognitive knowledge are necessary if students are to have a *functional knowledge* of the curricula; that is the ability to use metacognitive abilities in order to have a performative level of understanding. Biggs (2003) makes the point that most universities focus on developing *declarative* knowledge, at the expense of *functioning* knowledge. According to Ramsden (1992) this lack of functioning knowledge is also likely to be the result of students engaging in shallow, as opposed to deep learning. Furthermore, Leinhardt, Young and Merriman (1995), consider that universities’ views of knowledge are in conflict with the more practical, functioning focus of professional knowledge required in the workplace. According to Ertmer and Newby (1996), use of this knowledge requires professionals to be expert learners who are able to “select, control and monitor

strategies needed to achieve desired learning goals” (p. 1). This is similar to what Flavell (1976) refers to as metacognitive regulation which involves knowing how to tackle a task or activity, monitoring progress during the doing of it, and maintaining motivation to complete it. Such regulatory activity is also associated with self-appraisal and self-regulation (Paris & Winograd, 1990).

Cooperative education programmes create the opportunities for students to develop their metacognitive knowledge in preparation for their professional careers. According to Brodie and Irving (2007), the holistic nature of work-based learning, “means that students need to recognise knowledge presented in unfamiliar ways and to develop the skills of metacognition in order to recognise and learn from the knowledge and experiences encountered” (p. 12). This is borne out by a longitudinal study of student learning in cooperative education in which students were reported to have developed “a deep sense of how they learned, and from whom they learned (i.e., a developing sense of metacognition)” (Coll & Eames, 2007, p. 138). Biggs (2003) notes that the nature of metacognition means that “different forms of assessment [to tests/exams] are needed to evaluate and encourage the deeper learning” (p. 24).

In conclusion, cooperative education is ideally placed to assist students’ metacognitive development. Choosing appropriate forms of assessment is important if such development is to be maximised. This is likely to include a self-assessment approach, as Biggs (2003) highlights: “If pupils are to become competent assessors of their work, as developments in metacognition tell us they should, then they need sustained experience in ways of questioning and improving the quality of their work, and supported experience in assessing their work” (p. 26). Possible approaches to create such experiences for students may include the setting of goals, and the initiation of on-going dialogue with their workplace and academic supervisors on their progress, achievements and future plans. In addition, student engagement in on-going critical reflection may also assist with developing self-awareness and self-regulation, and is something that Ertmer and Newby (1996) claim “can supply information about outcomes and the effectiveness of selected strategies” (p. 14). This is also consistent with andragogical (adult) theories of learning, which view learners as being self-motivated and self-directed, grounded in their lived experiences (Knowles, 1980)

who engage in critical self-reflection in order to reach their transformative potential (Mezirow, 1990) and their emancipatory interests (Habermas, 1987).

4.4 Constructivism and learning

Cognitive theory has developed in many different directions since the focus of knowledge creation and learning moved away from behaviourism. One particular area that has received most attention and has had a major influence in education is that of *constructivism* and its different forms. Vico (1668-1744), Kant (1724-1804) and Vahinger (1788-1860) are considered to be among the key intellectual founders of constructivism (Mahoney, 2004). More recently, the influential works of Bruner and Piaget moved constructivism into the field of education and learning. Constructivism might best be considered as a broader framework for considering cognition in education, particularly the influence of environmental factors on how individuals learn and take meaning from the world around them. Constructivism is reviewed here in relation to education and ‘instruction’ generally and its implications for the assessment of learning in cooperative education specifically.

Bruner (1990) argues that the information processing metaphor and its subsequent developments, while moving us away from behaviourist approaches to learning, trapped us into thinking that the mind is simply a machine for processing environmental stimuli. In his seminal work *Acts of Meaning*, he argues that the mind is more than a processor of information: “The central concept of a human psychology is *meaning* [original emphasis] and the processes and transaction involved in the construction of meanings” (p. 33). This view of the learner as a meaning-maker emerges as a common theme in constructivism, in particular that meaning and knowledge are formed by the interaction of new stimuli and ideas with an individual’s existing knowledge and prior learning experiences (Bruner, 1990; Tobin & Tippins, 1993; Wheatley, 1991). Essentially, meaning and knowledge are constructed in the mind through an interplay between what we currently understand (and how we organize these thoughts) and from what we subsequently experience in our encounters with the world around us, that is, our prior mental constructions both precede our observations (Boyd, 1994; Nussbaum, 1989), and influence how we view these observations (Duckworth, 1987). Bruner

(1990) argues that these individual meanings are also interpreted and shared through our interactions with the cultural surroundings:

By virtue of participation in culture, meaning is rendered *public* and *shared* [original emphasis]. Our culturally adapted way of life depends upon shared meanings and shared concepts and depends upon shared modes of discourse for negotiating differences in meaning and interpretation (p. 12).

From this constructivist view, learning is said to be “tuned to the situation in which it takes place” (Biggs, 2003, p. 21). The constructivist influence on education and ‘instruction’ is evident through greater attention being paid to learners, particularly their prior knowledge, experiences, and motivation. In earlier work, Bruner (1966) outlines a theory of instruction in which he argues that a teacher’s approach needs to start from the position of the learner and not the teacher. This means paying attention to how knowledge may best be presented so that it can be understood by each student; that is, those “experiences which most effectively implant in the individual a predisposition toward learning” (p. 40). In his later work Bruner (1973) argues that attention also needs to be given to the students’ readiness to learn (influenced by contexts and experiences) and that instructors needed to provide for extrapolation; that is encouraging learning that goes beyond the information presented. This learner-led view of pedagogical and andragogical instruction became increasingly popular in the late 1970s and beyond. Bruning et al. (1999) noted that this was based on a increasingly accepted view of learning in education: “What can be learned depends substantially on what students already know ... Students understand what they read, hear, and see through the filters of their experience in their families and cultures” (p. 74). Bruning et al. also note four other views of learning that were to have a major influence on teaching approaches in all forms of education (and arguably still do today). These are summarised here:

1. *Help students activate their current knowledge* (the focus of teachers should be in activating existing schemas held by students, for example by stimulating students’ recall of related information ... and probing both intellectual and emotional reactions to materials;
2. *Help students organise material into meaningful chunks* (of importance is to find ways of helping students to discover relationships and meanings between new information and

information they hold from their lived and prior experiences);

3. *Aid students in proceduralising their knowledge* (declarative knowledge needs to be procedurised, enabling its [conditional] application in various situations. By giving students practical experiences in solving ‘real-life’ problems in complex situations, this helps to give them a working knowledge instead of an inert knowledge; and
4. *Provide opportunities for students to use both verbal and imaginal coding* (traditional pedagogy focuses on teachers’ and students’ verbal knowledge, that is: talking, listening, reading, and sometimes writing. This focus neglects the important non-verbal, imaginal knowledge such as “pictures, touch, activities, and imagination.

There are several implications of these constructivist views of learning for assessment in cooperative education. First, it is likely students’ starting points are all different; each having differing levels of prior work and lived experiences. Thus assessment needs to acknowledge that each student learns different things from their work placement, each being of potential value and merit. Second, attention needs to be given to preparing students for their placement in ways that enables them to draw upon their existing knowledge schemas and link this to the possible stimuli afforded by a working environment. Assessment needs to find ways of probing their reactions to both the intellectual and emotional experiences they have. Third, assessment needs to include ways of enabling students to link their prior experiences and knowledge (e.g., theories developed in the classroom environment) with workplace practices. Fourth, students’ procedural and conditional knowledge need to be emphasised (as described in the previous section). Finally, when preparing students for placement, and subsequently assessing the learning, it is advisable to allow for both verbal and imaginal expressions of learning. For example, portfolio-based assessment would enable students to demonstrate what they have learned using more than words (e.g., diagrams, pictures, photographs, videos).

4.4.1 The influence of Jean Piaget on constructivism

Piaget is considered to be a key figure in the foundation of constructivism, based on his work in the cognitive development of children and young adults (Johnson & Gott, 1996; von Glaserfeld, 1988). His work had a profound influence in moving the prevailing educational and psychological views of child and adult education towards an interpretivist ontological perspective (Ernest, 1993; von Glaserfeld, 1991).

The relevance of Piaget's work to young adults involved in workplace learning and cooperative education can be found largely in his work on Cognitive Development Theory. According to Piaget (1950, 1985), a key aspect of the development of cognition and logical thinking in the learner (of all ages) is through their encounters with the world around them and the extent to which this re-enforces or disturbs their current way of thinking about things (*equilibration*). What is considered to be familiar or similar to other prior experiences can be *assimilated* into the learner's existing knowledge or internal cognitive structures. The unfamiliar or new experience must be *accommodated* by the learner and this requires an adjustment to the learner's cognitive structures and the way they think about the world. Piaget said that a learner facilitates cognitive growth throughout their life by maintaining a balance between assimilating and accommodating new knowledge, which he refers to as a process of equilibrium. Part of this process involves the learner in confronting their prior ways of thinking about things that are in conflict with or do not fit easily with their experience of a new situation, causing cognitive conflict. According to Piaget this is not an easy process and can create a state of *disequilibrium* in the learner. This can sometimes result in the learner being reluctant to change their way of thinking even when there is significant evidence to suggest this is required (Kamiloff-Smith & Inhelder, 1975).

Eames and Cates (2004) relate Piaget's concept of equilibration to cooperative education. They argue that exposing students to the workplace provides an easier transition from classroom learning to workplace learning. This simultaneous development of reasoning and thinking in the two environments

helps to maintain the learner's cognitive growth and logical thinking without overly disturbing their equilibrium:

The non co-op student develops the logic of the classroom but upon graduation, must radically shift to the logic of work. This adjustment to the student's internal [cognitive] structure and subsequent change in thinking creates a state of disequilibrium that may explain the transition problems employers often describe in non co-op students. Co-op students may experience less disequilibrium compared with non co-op students (p. 40).

Referring to Piaget's cognitive theory of assimilation and accommodation of knowledge, and recognising the potential for disequilibrium, Winter (2003) says that assessment practices need to recognise that learning "is a *process* [original emphasis] that takes place gradually, so students need time to digest their learning and to *make sense of it* [original emphasis]" (p. 120). This is consistent with the views of Kegan (1994) who suggests that *meaning making*, when in conflict with an individual's current frame of reference, will require awareness and patience by those providing support. According to Schön (1983, 1987) making sense of new experiences in the workplace involves engagement in reflection. Theories of experiential learning and reflection are discussed further in the next two sections. It is recognised that constructivism branched out in a number of different areas, beyond those discussed here. Of relevance to this study is the importance of the social, cultural and situated dimension of work-based learning, including the development of *social constructivism*, which is considered in Section 4.7.1.

4.5 Experiential learning

John Dewey is considered to be a multi-factoral thinker, notably "as a philosopher, educator, social critic, [and] political activist" (Van Gyn & Grove-White, 2004, p. 28), and is viewed as the most influential educational thinker of the twentieth century (Kolb, 1984; Van Gyn & Grove-White, 2004). One of his many contributions to education generally and cooperative education in particular is through his work on experiential learning. Dewey (1933) viewed experience as an essential component of learning; that we learn best when actually experiencing the phenomena under scrutiny, creating the commonly known expression 'learning by doing'. In education, the notion of learning by doing is indicative of

an activity-oriented approach, as noted by Gentry (1990): “Students must be involved in the process. Experiential learning is active, rather than passive” (p. 13). The active nature of experiential learning means that it is also considered to go beyond the cognitive dimension and includes affective and behavioural aspects of learning (Hoover & Whitehead, 1979).

Experiential learning has become known for its cyclical nature, which has its roots in Dewey’s (1938) view of experience as one of continuity: “The principal of continuity of experience means that every experience takes up something which has gone before and modifies in some way the quality of those which come after” (p. 27). Furthermore, each “experience influences in some degree the objective conditions under which further experiences are had” (p. 30). In other words, each student’s experience opens up new ways of looking at things, which provides new cognitive frameworks for viewing subsequent experiences, and so on. Each experience involves our interaction with whatever constitutes our environment within a given situation (e.g., people, the subject of conversation, objects). We also bring into such situations our own pre-dispositions, therefore: “The environment, in other words, is whatever conditions interact with personal needs, desires, purposes, and capacities to create the experience which is had” (p. 42). Dewey views the two principles of continuity and interaction as inseparable, as each interaction shapes our future: “What he [or she] has learned in the way of knowledge and skill in one situation becomes an instrument of understanding and dealing effectively with the situations which follow” (p. 42).

While experiences shape our learning, without impulse, purpose and means they are unlikely to result in meaningful and intelligent outcomes. Dewey (1938) views impulses as our desires and feelings which are “the ultimate moving springs of action” (p. 82). Purpose involves observing the conditions we are in, using our knowledge of what we experienced in similar situations in the past, and then using judgement based on the interaction between current observation and prior knowledge. Means are viewed as converting impulses and purposes into a plan of action. Dewey stresses that teachers have an important responsibility in creating the right conditions that result in *purposeful action* of the students. Such conditions include the need for the teacher to engage with students in order that they become aware of their “capacities, needs, and past experiences” (p. 85). This

knowledge enables plans to be developed, thus “purposes grow and take shape through a process of social intelligence” (p. 85). In relating this to cooperative education, it would seem incumbent upon those preparing students for a work placement that attention is given to students’ past experiences and knowledge. While students undoubtedly have a desire and impulse to do well in their placement, they may not have the necessary skills to take purposeful action. One approach to building such skills may be to work with students to help them identify their perceived strengths and weaknesses and to use this as an individual plan of action or set of personal goals for their placement. Students might also be encouraged to observe those things that might be considered to be important, and to subsequently reflect on these observations in a way that, as Piaget outlines, assimilates and accommodates this with their prior knowledge and experiences. In their review of the implication of Dewey’s work for cooperative education, Heinemann and DeFalco (1990) argue that such reflections would need to take an interdisciplinary perspective, for example, by drawing from the social sciences and natural sciences, which would require a “strong interdisciplinary background” (p. 43). While not disagreeing that such an approach would enhance students’ learning from their experiences, providing the required interdisciplinary grounding may require considerable changes to the structure of the broader academic curricula, of which the cooperative education experience is part. For an internship course that is only a relatively small component of the overall curricula (as is the case in this study) this may not be feasible given the political, cultural and economic factors that influence such a decision.

A further contribution to the theory of experience-based learning was through the work of social psychologist, Kurt Lewin. Lewin’s contribution to the field stemmed from his laboratory work with training groups (‘T-Groups’). The interactions between himself, his fellow researchers, and the staff involved in the training resulted in unanticipated aspects of learning, captured through a cycle of dialogue, analysis and actions (Kolb, 1984). This led to the development of the Lewinian experiential learning model (see Lewin, 1964) involving four elements. The cyclical model commences with concrete experiences which are subsequently reflected on. These reflections create the basis for the formulation of abstract concepts and generalisations (theories); the implications of which are used to guide future actions. This then leads to the next concrete experiences and so on.

Kolb (1984) built on the work of Lewin, as well as the work of Piaget and Dewey, to create an integrated model of experiential learning in education that makes explicit linkages between a student's personal development, the workplace and formal education. He viewed the workplace as "a learning environment that can enhance and supplement formal education and can foster personal development through meaningful work and career-development opportunities" (p. 4). A key aspect of this integrated view of experiential learning is that learning should be conceived of as a process, rather than an outcome. He criticises educational institutions for defining learning through outcomes (and by implication assessment of outcomes) which he considers is caused by behaviourist influences embedded in our consciousness:

There are elements of consciousness ... that always remain the same ... It is the notion of constant, fixed elements of thought that has had such a profound effect on prevailing approaches to learning and education, resulting in a tendency to define learning in terms of its outcomes. (Kolb, 1984, p. 26)

In contrast to the behaviourist views of learning, Kolb (1984) states that experiential learning theory views learning differently: "Ideas are not fixed and immutable elements of thought, but are formed and re-formed through experience" (p. 26). He points out that in the models and views of learning developed by Dewey, Piaget and Lewin, each view learning "as a process whereby concepts are derived from and continuously modified by experience. No two thoughts are ever the same, since experience always intervenes" (p. 26). Kolb's views of experiential learning reaffirm that a student's learning in the workplace is unique to them. Each student's development is derived from the learning experiences they have and the prior knowledge and experiences they bring to each learning situation. While a learning outcome approach is commonly used in higher education, experiential learning theories suggest some caution is needed when used in cooperative education; where the learning occurs through the individual experiences students have in the workplace.

Kolb's reconceptualisation of Lewin's experiential learning model is not without its critics. For example, Quinn (1998) argues that it wrongly assumes that all four components of Lewin's model can be utilised in all learning situations, while Boud (1994) argues that the model "is insufficiently wide ranging to sustain the weight of situations to which it has been applied" (p. 49).

Nevertheless, the model has been subsequently adapted in different ways, for example, influencing the cyclical nature of action research, as outlined by Kemmis and McTaggart (2000), and reflective writing, as outlined by Holly (1997). There are also some similarities with the continuous and developmental nature of reflective practice (Boud & Walker, 1998; Schön, 1983). Furthermore, business internships, like other forms of cooperative education, are viewed as ideal ‘real-life’ opportunities that meet most of the criteria for acceptable, experiential learning pedagogical practices (Gentry, 1990; Gentry & Giarmartino, 1989). However, Gentry (1990) highlights two criteria, that can sometimes be problematic in internships (and arguably could also be applied to cooperative education in general), which involve structure and feedback on student learning and performance. Lack of attention to these is likely to reduce the quality of learning that occurs. Because the learning takes place outside of the formal education setting, learning is less certain and “as an ‘experience’ by itself will not insure learning ... [and] if there is no guidance provided, the experience may be largely meaningless” (p. 14). Gentry and Giamartino (1989) suggest that an important aspect of structuring an internship course includes incorporating the course within the academic programme. This would enable adequate academic time to be allocated for student preparation and supervision, and ensure that the course attracts academic credit. In addition, such a structured approach can enable attention to be paid to feedback. The authors reinforce the importance of focusing feedback on the process of learning, rather than simply on the outcome (e.g., from a written report). An implication of this for assessment is that students need to be able to articulate their learning and understanding in ways that elicit feedback from their employer (workplace host) and/or from their academic supervisor. An important and implied aspect of the experiential model of learning is the need for learners to reflect on their experiences in order to generate new concepts and meanings, which in turn informs future actions and experiences. The following section gives consideration to the nature of reflection through experience and its implications for assessment.

4.6 Reflective practice

In Chapter 2, it was noted that the use of reflective journals is a common learning and assessment tool used in cooperative education. Here consideration is

given to what is understood by reflection, how this is manifested in reflective journals and the implications of experience-based reflections for assessment in cooperative education. Boud (2001) cites earlier work of Boud, Keogh and Walker (1985), describing reflection as “those intellectual and affective activities in which individuals engage to explore their experiences in order to lead to new understanding and appreciations” (p. 10). Moon (1999) adds that reflection is also “applied to relatively complicated or unstructured ideas for which there is no obvious solution” (p. 10). Reflective journals are common tools for expressing what students have learned from their experiences; that is, through students’ reflection-on-action, after the event (Boud, 2001; Schön, 1983, 1987). Knight and Yorke (2003) note that portfolios are often used as vehicles for student reflection:

[Portfolios] involve students in making (ordered) sense of their experiences, many of which will have had a social dimension, and in reflecting upon those experiences and of how what they have learned can help them cope with the challenges that the world throws at them. (p. 104)

If reflective journals are to be used for assessment purposes it is important to determine what it is that students may be expected to reflect on and how this may be articulated. Boud and Walker (1998) note that: “Without some direction reflection can be diffuse and disparate so that conclusions or outcomes may not emerge. Without a focus on conceptual frameworks, learning outcomes and implications, reflection for learners can be self-referential, inward looking and uncritical” (p. 193). Brown (1999) notes that some disciplines, such as social work and nursing, use the framework of a critical incident. Here students may be asked to write about two or three incidents they experienced that they felt had an important impact on their learning. The reporting of this would be expected to follow a clear structure in order to emphasise the learning that was derived from the incident. Brown suggests that such a structure may include: a description of the context; what actually happened; what the student did; what curricula theories may have contributed to the student’s actions; what resulted from the student’s actions; what alternatives were considered and why; what the student may do differently if faced with the same situation in the future; and what the student learned from the incident. While critical incidents can provide a useful structure or framework for reflective writing, Boud, Keogh and Walker (1985) point out that reflection is more than a cognitive activity and needs to recognise the importance of emotion. This includes “motives, thoughts and feelings” related to

ourselves and others (Holly, 1997, p. 5). Moon (2004) considers that our emotions: influence the knowledge that is derived from reflection; are involved in the process of reflection itself; can actually be an outcome of reflection (e.g., feeling happier or more positive about things); and can inhibit or facilitate reflection. Driscoll and Teh (2001) created a structured model of reflection within a broad framework of *what, so what, now what* that encompasses the emotion dimension. This emotional component is included in the ‘so what, now what’ analysis of the experience, for example by asking questions like how did you feel at the time and what do you feel like doing now.

The other aspect of giving direction for using learning journals relates to the expected learning outcomes of the work placement. Baume and Yorke (2002) argue that workplace learning enables students to relate “their practice and understanding to cognate evidence from the literature and elsewhere” (p. 7). However, determining what might or should be learned needs to take into account the nature of cooperative education. Here learning is more than simply an inductive process involving students gaining academic insights from practice. While theory-practice connections are valuable, the workplace also provides the opportunity for students to learn a number of other things that are not directly related to the curricula, such as what it means to be a professional in a community of practice. This is discussed further in Section 4.7.4.

Assessing reflective journals is considered to be problematic. This is because what may be learned by students, and subsequently expressed in their journals as having been learned, is a complex and contentious issue. For example, Boud and Walker (1998) consider that:

There are no reflective activities which are guaranteed to lead to learning, and conversely there are no learning activities guaranteed to lead to reflection. It is often in the presentation of appropriate reflective activities that the skill of the teacher is manifest and that students are assisted in their learning. (p. 193)

A dilemma in providing assistance to students, for example, by giving feedback on particular reflective incidents in their journals, is that the teacher is party to the outcome and is potentially compromised if this work becomes part of any subsequent summative marking. A similar dilemma exists for students, particularly if they are asked to engage in *critical reflection*, defined by Boud

(2001) as “the questioning of taken-for-granted assumptions about oneself, one’s group, or the conditions in which one operates” (p. 13). Critical reflection is a common feature of cooperative education and work-based learning programmes (Atchison, Shiffrin, Reeders, & Rizzetti, 1999; Crebert, Bates, Bell, Patrick, & Cragolini, 2004; Keating, 2006; Van Gyn, 1996), influenced by the early pioneering work of Schön (1983, 1987), who argued that professional practitioners need to develop self-awareness and be able to reflect critically on their own performance. According to Brodie and Irving (2007) critical reflection in work-based learning “enables students to justify and validate their claims for learning, by using a variety of evidence sources. It also enables them to recognise future learning needs: essential for developing a capacity for lifelong learning” (p. 15). However, in writing about such matters students are exposing their inner thoughts, their uncertainties and their weaknesses. Boud argues that in doing this, attention must be paid to who is reading it and for what purpose. He suggests that considerable care is needed in recognising the conflict that exists between students exposing their thoughts and feelings privately and what they would wish to expose publically. If they believe that what they write could be used in a way that may impact negatively on their assessment marks, they may be reluctant to do so. Perhaps for this reason, reflective journals have largely been used for formative assessment purposes in cooperative education.

Critical reflection is often used as a way of making further sense of the reflective journals at the end of a course of study or a work placement. For example, Holly (1997) sees writing to reflect as a cyclical pattern: “First, reflecting on experiences before or as you write; and then, reflecting on the journal entries themselves at some later stage, which may provide material for further reflection and writing, and so on” (p. 8). In effect, such reflections on reflections enable learners to step back and mull things over again (Boud, Keogh, & Walker, 1985). In addition, it can recognise that “sometimes it is harder to ‘selectively remember’ our experiences the closer we are to them” and on such occasions “it is easier to recall events more comprehensively with the distance of time” (Holly, 1997, p. 9). These subsequent or secondary reflections sometimes take the form of reflective essays. However, whether reflections are documented through reflective journals or reflective essays or both, an important question that must be addressed is what is it that is actually being assessed? Moon (1999,

2004) suggests that it needs to be determined whether we are assessing the *process* of reflection or the *product* of learning. If the former, then the focus is on using the reflective activity as the focal point for assessment (e.g., the student's critical thinking skills or reflective capacity). If the latter, the focus is on the learning that students derive from their experiences, rather than the reflective skills themselves. While Brodie and Irving (2007) suggest that students may use a variety of evidential sources to demonstrate such learning (as outcomes), an approach that is solely outcome focused may be problematic. For example, what students learn on their placement is unique, influenced by the opportunities afforded by the contextual and situated nature of their particular placement (this is discussed further in the following sections). Importantly, as noted in the previous section, learning is by nature a continuous process activity that leads to human development (e.g., enhancement of certain skills, knowledge, dispositions and attributes). This suggests that there needs to be some attention paid to the process of learning, through reflection, in order to contribute to students' long-term development as self-regulating professionals. A related issue to this identified by Moon, is in determining what aspect of the process of reflection is being assessed. If the purpose is to use reflection to develop critical thinking, then the assessment and its related criteria should focus on critical thinking. If the purpose is to enhance reflective practice, then the emphasis should be on the depth of reflection.

4.7 The social, cultural and situated dimension of workplace learning

Earlier views of cognition and constructivism considered learning from an internal mental processing perspective, in which expertise is related largely to cognitive or intellectual ability (Sternberg, 1988). A constructivist view of knowledge is that individuals construct new knowledge from interactions with the world around them. As such, individuals are 'meaning makers', who learn from the interaction between new information and their current knowledge and prior learning experiences. This viewpoint gives the impression that knowledge is internalised by the learner and is largely a cerebral exercise and therefore "too easily construed as an unproblematic process of absorbing the given, as a matter of transmission and assimilation" (Lave & Wenger, 1996, p. 143). In cooperative

education, student placements will occur in different workplaces, with each bringing their own influences on student learning. This section reviews the literature that informs the social, cultural and situated dimension of workplace learning, and how this impacts on assessment.

4.7.1 Social constructivism and learning

Social constructivists consider that learning occurs within a social context (Werstch, 1991) and that new information is obtained by individuals by constructing knowledge through their interaction with and influence from their social environment. Thus an individual's constructs are influenced by their own prior knowledge, and are also subject to influence by peers, contextual experiences, and social interactions within their particular learning environment (Good, Wandersee, & St Julien, 1993). In effect, while we may make meaning from the world in our mind, we do so through our active engagement with the social world. Thus cognition (learning) is inseparable from social experiences and influences. It is the inter-action and negotiation between the two that gives meaning (Perret-Clermont, 1993; Vygotsky, 1978) and, according to Cobb (1994) both perspectives are equally useful in helping us to understand how an individual learns.

Arguably, it is the work of Vygotsky that has had a significant influence in moving constructivism away from a more narrow cognitive perspective. Vygotsky (1978, 1981) viewed cognitive processes to be inseparable from social interactions and that learning cannot be explained solely by a process of internal assimilation and accommodation of new knowledge, but must also consider the way in which learners are integrated into a 'knowledge community'. In effect, the human mind and the way it constructs knowledge is embedded in a social setting. Importantly, Vygotsky argued that it is the social dimension of consciousness that creates the origins and stimulus for individual cognitive activity and the higher mental functioning. Thus "the individual dimension of consciousness is derivative and secondary" (1978, p. 30). He also considered that it is the higher mental functioning, and subsequent voluntary forms of human behaviour, that distinguishes humans from other species. Vygotsky (1978) considered that the social setting creates its own culture – communicated through *physical tools*

(graphical, verbal, and gestural signs) and *psychological tools* such as language. He saw this communication occurring in a two stage process, which he refers to as “the general genetic law of cultural development” (p. 57). First, the interpersonal interactions between individuals occur at a social level, which he refers to as *interpsychological*. These are then internalised in the mind – constructed as internal tools - which he refers to as *intrapsychological*. “This applies equally to voluntary attention, to logical memory, and to the formation of concepts. All the higher functions originate as actual relationships between individuals” (p. 57).

There are two aspects of Vygotsky’s concept of knowledge construction that require further brief exploration. First, it is apparent that the physical and psychological tools employed within a social setting provide the mediating mechanism for individual meaning-making. Knox and Stevens (1993) point out that the tools employed are merely symbolic and that it is the meaning encoded within them that is important. This, they suggest, means the tools employed necessarily vary in their impact on mental functioning and development. The second aspect is in Vygotsky’s use of the term ‘culture’. This term is used broadly, which he sees as being inseparable from its ‘social’ dimension: “Culture is the product of social life and human social activity. That is why just by raising the question of the cultural development of behaviour we are directly introducing the social plane of development” (Vygotsky, 1981, p. 164). Solomon (1999) provides a useful, more detailed definition of culture as: “How people group and identify themselves, that is the social human bonds, shared goals, belief systems and values that connect people” (p. 120). Vygotsky, like other social constructivists, views social activity, through its cultural forms and within its cultural settings, as creating shared meanings and individual mental constructs. Thus meaning and reality are socially constructed within cultures by the members within it (Kukla, 2000). These relationships formed are socially determined and this influences knowledge shared and learning derived (Goodnow, 1990).

The implications of social and cultural construction of learning for assessment is considered in the following sections. In particular, attention is given to how learning is both situated and distributed across cultural settings within communities of practice. This requires assessment to consider the emergent, informal learning that occurs within a community of work practice,

rather than the pre-determined, formal learning that occurs within a community of education practice.

4.7.2 The situated and distributed nature of learning

The social dimension of learning means that knowledge is *situated* and created within a local cultural setting (Merriam & Caffarella, 1999; Rømer, 2002). The notion of *situated learning* has expanded on the premise of social constructivism by emphasising the important influence of context on learning. Tennant (1999) defines situated learning as “a broad collection of work which shares an emphasis on the importance of context in acquiring knowledge and skill” (p. 170). Tennant notes that situated learning is underpinned by four key principles or assumptions, which can be summarised as: high level learning is gained from everyday work and life experiences; localised, domain-specific knowledge is necessary for the development of expertise; learning is a social process; and knowledge is embedded in practice and transformed through goal-directed activity. In emphasising the importance of context and activity in formal education, Brown, Collins and Duguid (1989) point out that classroom learning is typically decontextualised, separating knowledge from the situation in which it is intended to be used as though “it is ancillary to learning and cognition” and suggest that context should be “an integral part of what is learned. Situations might be said to co-produce knowledge through activity” (p. 32).

There is some overlap between cognitive learning and situated learning. Shephard (2000) noted that “cognitivists focus more on cognitive structures, abstract representations, and in generalised principles” (p. 11). Greeno (1997) notes that cognition also focuses on acquisition of skills. Situated learning (or situated cognition as it is sometimes referred to) builds on this by focusing on “students’ development of participation in valued social practices and of their identities as learners” (Greeno, 1997, p. 9). In other words, learning is also related to and influenced by the situation in which the learning activity occurs. It follows that performance and learning in the workplace are influenced by the often unpredictable, authentic, situated activities that students must adapt to, which is quite different to the situated nature of learning in a formal education

setting in which students adapt to pre-determined, simulated activities. These different situated settings impact on students' learning, as Shephard (2000) notes:

By arranging learning activities in ways that make skills and routine knowledge functional for students' contributions to broader social activities and meaningful for their development as learners, students' efforts and successes in learning can make sense to them in ways that are not available when the curriculum is organised primarily as a trajectory of skill and knowledge acquisition for its own sake. (p. 10)

However, relating students' 'efforts and successes in learning' to the notion of competence is a more complex issue. Eraut (2004) considers that this is due to the social-centred nature of workplace learning in which competence involves "meeting other people's expectations ... which will differ according to the performer's experience, and sometimes according to the price of their service" (p. 264). Furthermore, Eraut points out that competence is a moving target because "what counts as competence will change over time as practices change and the speed and quality of work improves" (p. 264). A further complexity in learner competency is when considering the issue of knowledge transfer across different situations. In this regard, Greeno (1997) considers that improvement in learning (and competence) "involves becoming better attuned to constraints and affordances of activity systems so that the learners' contribution to the interaction is more successful" (p. 12). In other words, what is of importance in knowledge transfer is not just the skills and knowledge (or competencies) acquired in a particular situation, but the understanding of how these competencies interact with and are influenced by the activities themselves and the situation in which they are undertaken. This view is consistent with the notion of metacognition and the use of conditional knowledge discussed earlier. However, Greeno believes that this also highlights important differences between cognitive and situated views of learning, which has implications for assessment: "In contrast to the behaviourist and cognitive views, where a domain of skills needs to be sampled, the situative view requires sampling across a domain of situation types in which participation involves the kinds of knowing that are of interest" (p. 8). This adds to the complexity of assessment in an internship where the situation types are typically limited to student experiences within a single workplace. Greeno's view also implies that competent performance in one workplace is not necessarily predictive of performance in another workplace.

Another important aspect of the situated nature of learning is that it is usually informal and occurs through the interaction with co-workers. In Billett's (1994) research that considered the nature of learning within a mining and secondary processing plant, he concluded that the activities producing knowledge were embedded in the "social relations which comprise cultural practice" (p. 128). He examined the outcomes of different arrangements used for training and learning; both formal, structured learning and informal learning that occurs in everyday, work activities. His findings highlight the importance of informal, contextualised learning:

Those aids to learning which were not embedded in a culture of practice were not as valued ... [and that] when the learning is without appropriate context and is based on description, the whole nature of the interaction changes and understanding becomes more complex. (p. 128)

It was apparent that workers learned the most from their informal, everyday encounters with other workers (e.g., listening, observing and entering into a dialogue while undertaking work activities). Learning from others in the workplace is similar to what Bandura (1997) refers to as *vicarious learning*. It is also consistent with Salomon's view that "people appear to think in conjunction with others and with the help of culturally provided tools and implements" (1997, p. xiii).

Informal, situated learning is also said to result from the social process of negotiation and problem solving involving others (Stein, 1998). An example of this social dimension of learning can be found in the work of Lave (1988). She found that people struggling to solve abstract, mathematical problems in a classroom setting, were able to solve similar and more complex mathematical problems in a supermarket (i.e., in a real, contextualised situation). She concluded from her study that cognition is a dialectic between the person acting and the social setting in which the activity occurs. Of course, this is not to say that formal learning is not important, as Cobb and Bowers (1999) note, the mathematical problem solving in the supermarket may have benefitted from the type of instruction used by the teacher. Similarly in Billett's study, workers acknowledged that there was value in the formal training provided. Nevertheless, the importance of informal learning through interactions with more experienced others, in the context of undertaking activities in real situations, is of relevance to

cooperative education. Wink and Putney (2001) add that this guided, informal learning in the workplace enables the student to internalise the information in a way that enables them to solve similar problems independently in the future. According to Bockarie (2002), the outcome of such internalisation is practical knowledge which “emerges in contexts in which it is relevant – the experience must be reflected on to understand what has been learned – and concepts continually evolve with each experience and new use of knowledge” (p. 52).

While informal learning is situated in a workplace setting, Cole and Engeström, (1997) consider that it is also *distributed* across individuals and artefacts (e.g., through textual, electronic, and other visual forms). This means that learning is not solely a cognitive activity involving engagement with the social world rather it is the social world, through its cultural forms, that distributes learning throughout the particular community; residing jointly among individuals and its cultural tools (Salomon, 1997). In other words, learning (and the knowledge derived) is not only situated, but is contextually-bound and distributed across a workplace community in different forms. Unlike the learning that occurs within a formal education setting, situated (and distributed) learning in the workplace can be considered to be “a sociocultural phenomenon, rather than an isolated activity in which an individual acquires knowledge from a decontextualised body of knowledge” (Buysee, Sparkman & Wesley, 2003, p. 267). Informal learning in the workplace occurs through engagement in day-to-day work activities, through observation, and through interaction with work colleagues. For students on a work placement, such observation and active engagement with their work colleagues enables them to contextualise their learning and produce work that is consistent with expectations or standards that are embedded within the cultural setting. Thus performance is inextricably linked to the students’ active participation with others in the workplace and with the cultural tools and artefacts.

4.7.3 Apprenticeship and its different meanings

In a workplace setting, the social guidance between the learner and the more expert other is considered to be an important aspect of the learning process (Billett, 1994). Therefore, the support and development afforded by the

traditional teacher-student relationship in a formal educational setting must be reconsidered. For example, an academic who supervises students in cooperative education cannot be considered as the expert practitioner within each workplace setting, and is likely to be unfamiliar with the cultural setting and its influences on student learning. Importantly, the academic is not in a position to actively engage with the student in their day-to-day activities, and is removed from the student's interactions with workplace staff and the formative feedback they receive. As a result, this makes it "extremely difficult to monitor the student's learning as it takes place" (Gentry & Giamartino, 1989, p. 129). A brief examination is given here to some theories of learning that help inform the nature of the support for student learning in a workplace setting and the implications of this for assessment.

The term apprenticeship is commonly referred to in different ways to explain the relationship between the student and the more experienced expert. Brown, Collins and Duguid (1989) use the analogy of a craft apprenticeship to explain the notion of *cognitive apprenticeship*, which they view as "supporting learning in a domain by enabling students to acquire, develop and use cognitive tools in authentic domain activity. Craft apprenticeship enables apprentices to acquire and develop the tools and skills of the craft through authentic [situated] work" (p. 39). Thus cognitive apprenticeship occurs within a cultural setting where "ideas are exchanged and modified and belief systems developed and appropriated through conversation and narratives" (p. 40). Billett (1994) argues that learning in the workplace occurs through the "interaction with expert others [which] guides the learner's tentative solutions to tasks and the means of securing goals" (p. 49). He notes that this interaction "is analogous to the modelling, coaching and scaffolding of the approach to learning" (p. 49) identified by others. A key contributor to this apprenticeship-style, proximal development to learning can be found in the work of Vygotsky. Vygotsky (1978) considers that the construction of knowledge is maximized through a novice-expert relationship in which the expert provides guidance and support to the learner, gradually reducing this support as the learner becomes more competent. This is referred to by Bruner (1966) as *scaffolding*. The gap between the level of unaided performance and that demonstrated under expert guidance is viewed by Vygotsky as the 'zone of proximal development' (ZPD). In their review of the literature focusing on Vygotsky's ZPD, Lave and Wenger (1996) note that this concept is subject to a

number of different interpretations. Two particular interpretations are of relevance to cooperative education. First, in a ‘scaffolding’ interpretation the focus of the ZPD is on an individual’s problem solving abilities. In the second interpretation, ZPD is viewed from a ‘cultural’ perspective. Here the ZPD is seen as “the distance between the cultural knowledge provided by the socio-historical context ... and the everyday experience of individuals” (p. 144).

Each of these interpretations has implications for learning and assessment in cooperative education. In considering the first interpretation, the formative nature of scaffolding through the process of expert guidance suggests that the student’s performance in a work placement is the result of a combination of the individual student’s problem solving ability, their willingness to learn and the quality of the guidance given to them. This guidance involves worksite experts (employer & employees), as well as academic experts. Arguably, the situated nature of the work means that the guidance provided in the workplace is of the most value to the student in solving day-to-day, work-related problems. However, unlike the academic guidance provided through the pedagogical practices of classroom-based activities, worksite guidance is provided individually rather than collectively, and is therefore likely to be much more variable due to the different levels of employer expertise in, and commitment to, learner guidance and mentoring. Given student performance is influenced not only by their own efforts, skills and abilities, but also by the quality of mentoring and support they receive, the issue of mentoring variability needs to be acknowledged and addressed if student performance outcomes are part of the summative assessment.

In terms of the ‘cultural’ interpretation, there are likely to be considerable differences between work ‘culture’ and academic ‘culture’. Having cooperative education as part of the academic curricula requires students to make sense of and move between two different forms of culture, expertise and knowledge. Such transition and movement is sometimes referred to as ‘boundary crossing’ (Reder, 1993; Engeström, Engeström, & Karkkaninen, 1995). If assessment is to contribute to learning, then assessment practices must consider the implications of students moving between these two cultures and what this means for them in their preparation for professional practice. For example, students learn about what it means to be an employee, what is important in the organisation in terms of

business imperatives, how conditional knowledge is developed, and also ‘how to get on’ and assimilate into the workplace. This is likely to be particularly important for international students and new migrants. Such experiences are also influential in students’ choice of future careers and the type of organisation they may wish to work for. Methods of assessment that focus students’ attention on these learning experiences, such as critical reflection, are likely to be beneficial.

In returning to the earlier discussion on the different forms of apprenticeship and how learners are supported, Billett (1996) considers that in addition to the proximal guidance provided by workplace experts, learning in the workplace also benefits from *distal guidance*. This refers to the indirect guidance that learners extract from the physical environment and from observing other workers, and acquired from the “clues and cues, models and goals” (p. 55). The notion of clues and cues derived from indirect guidance is also a central theme in Rogoff’s (1990, 1995) notion of *guided participation*, which she views as the mutual relationship between individuals as they participate in socioculturally informed shared activities. In brief, this recognises that “new members of a community are active in their attempts to make sense of activities” (Rogoff, 1995, p. 148). Guidance is provided “through the course of participation in shared endeavours, as people attempt to accomplish something”. Such endeavours have purposes, which are commonly understood. Guidance occurs through “tacit communication and arrangements” (p. 148) between new members and others with an interest or involvement in the activity. Rogoff’s view of participation considers that when people work together in a common activity they share their knowledge and interpretations, often unconsciously, through their mutual engagements, which are intrinsically linked to, and informed by, the particular sociocultural setting. Both Billett’s and Rogoff’s views of guidance could be said to extend Vygotsky’s ZPD by incorporating the cultural and tacit nature of learning in everyday cognitive activity. Thus the active observation and participation of the newcomer is equally important to learning as the formal guidance given by more experienced others. There are a couple of implications of this for this thesis. First, to maximise learning from distal guidance and participatory affordances, students might be encouraged to observe and reflect on the cues and clues, and models of practice through their engagement in work activities. Again, as discussed earlier, using assessment methods that can give

attention to such experiences (e.g., through critical reflection) contribute to students' learning. Second, the setting and managing of work objectives and personal goals during the work placement contribute to the students' motivation, participation and cultural understanding. Thus attention to these in assessment assists student's development.

4.7.4 Communities of practice

Lave and Wenger (1991) developed a different notion of apprenticeship to that of Vygotsky's ZPD. Lave and Wenger view apprenticeship through the notion of *legitimate peripheral participation* (LPP) within a *community of practice*. LPP is described as:

The process by which newcomers become part of a community of practice. A person's intentions to learn are engaged and the meaning of learning is configured through the process of becoming a full participant in a sociocultural practice. This social process includes, indeed it subsumes, the learning of knowledgeable skills. (p. 29)

A community of practice is described as "a set of relations among persons, activity and the world, over time and in relation to other tangential and overlapping communities of practice" (Lave & Wenger, 1991, p. 98). Essentially, a newcomer becomes enculturated into the community of practice over time before becoming a full participant (i.e., expert or *journeyperson*). This requires "engaging with the technologies of everyday practice, as well as participating in the social relations, production processes, and other activities" (p. 101). The authors note however, that the "technology of practice is more than learning to use tools; it is a way to connect with the history of the practice and to participate more directly in its cultural life" (p. 101). For this reason, Bockarie (2002) notes that communities of practice "provide an essential context for the social production of knowledge, as well as the interpretive frames necessary for engaging in problem solving and problem finding to make sense of the world" (p. 51). He links Vygotsky's ZPD to learning within a community of practice, which he suggests provides "a boundary for members who are at various levels of competence or learning" (p. 51).

The notion of the newcomer moving towards the more advanced levels of competence of a journeyman has implications for both learning and assessment in cooperative education. First, in connecting the two concepts of ZPD and LPP, Bockarie (2002) suggests that it would be beneficial to stretch students beyond their current level of competence “so they gain increased levels of knowledge and further develop the competence to engage in activities in a community of practice” (p. 63). Clearly, in adopting such a proposal students would need to be helped to gain awareness of their current levels of cognitive and behavioural competencies before commencing their work placement (i.e., levels of ‘unaided performance’). This could then be used by them to identify areas of focus for their work placement (e.g., in setting goals). They could then choose to share this information with a more experienced journeyman in the workplace, who could provide the support (or scaffolding) needed. Second, the relationship between newcomer and journeyman can, to some extent, be related to the earlier discussion on metacognitive development. Students start their work placement as newcomers with reasonable levels of declarative knowledge (the curricula content domain) and some procedural knowledge (how to do things) - largely developed in abstract or simulated classroom-based conditions. As they engage in work activities and interact with work colleagues, they begin to learn the conditional knowledge (the ability to use declarative and procedural knowledge to take appropriate action in different situations) required in the cultural and contextual setting of the community of practice. Thus assessment practices may wish to incorporate those aspects of students’ experiences that help develop their conditional knowledge. This may be achieved, for example, through providing direction and structure for students’ critical reflections. Such direction may include asking students to broaden their view of experiences to include reference to the perceived gap between themselves (i.e., knowledge, skills, and abilities) as a newcomer and that of the experienced practitioners (journeymen), and the implications of this for their professional development. They may also be asked to reflect upon the broader sociocultural aspects of their workplace experiences, thus helping them to ‘fit in’ and be accepted into the communities of work practice.

A further aspect of communities of practice of relevance to assessment is in determining the nature of the learning being assessed. As has been expressed

throughout this chapter, workplace learning is complex and is influenced by a number of factors, such as: The sociocultural nuances of the practice setting; the expectations of competence within the particular workplace; the past experiences, abilities and sociocultural history of the student; the nature of the work students undertake; and the quality of the guidance and support students receive. These and other complexities involved in workplace learning perhaps account for Wenger's (1998) view that informal, *emergent* learning that occurs within a community of practice cannot be determined in advance:

Ultimately, it [learning] belongs to the realm of experience and practice. It follows the negotiation of meaning; it moves on its own terms. It slips through the cracks; it creates its own cracks. Learning happens, design or no design. (p. 225)

Given that cooperative education contributes to students' preparation for employment upon graduation, the learning that occurs on-site during their work placement is of crucial importance. However, this creates a tension between the cultural norms of an education community of practice (which typically emphasises formal, pre-determined learning outcomes), and the informal, emergent learning that takes place within a workplace community of practice. Fuller and Unwin (2003) consider this to be a weakness of Lave and Wenger's work "as it does not include a role for formal education institutions in the newcomer's learning process" (p. 408). Not surprisingly, staff and students acculturated in classroom-based pedagogy and the 'rules of engagement' in communities of educational practice, sometimes struggle to undertake the necessary 'boundary crossing' into the communities of work practice (Engeström, Engeström & Karkkainen, 1995). The consequence of this for assessment is picked up by Rømer (2002): "We cannot speak about assessment of individual knowledge [in the workplace], because knowledge cannot be located inside the head of the individual, but is distributed across the whole community of practice" (p. 235). Furthermore, Eames (2003) notes that "whatever assessment tool used should acknowledge the different learning environment of the workplace, and that each workplace community of practice may offer different learning opportunities" (p. 326). Because of the distributed nature of knowledge within a community of practice, Rømer (2002) argues that "assessors must get used to the idea that the products or the expressions of the students might not be what they appear to be" and suggests that it is insufficient for assessors to examine "other vocabularies

[expressions] using spectacles of his [sic] own ... In addition, he [sic] also ought to look at his own vocabulary through the spectacles of the other” (p. 239). This suggests that a student’s workplace performance needs to be viewed collectively through the lenses of both the assessor(s) and the student within the context of, and with reference to, the broader community of practice. The implication of this is that student learning and achievements in the workplace need to be reconceived. For example, any pre-set learning outcomes (which are the norm in most academic courses) may need to be viewed as broad intentions and directions for learning that allow for unanticipated, emergent learning; thus avoiding a singular focus that views learning outcomes as knowable end-points that become the basis for precise, objective and measureable assessment criteria. Torrance (2007) suggests an alternative is to give more attention to developing assessors’ support and judgement at a local level, thereby enabling the focus to be on “the nature of their relationships with learners, so that learners are inducted into ‘communities of practice’ which explore and interrogate criteria, rather than accept them as given” (p. 292). In addition, given the sociocultural nature of workplace learning, Eames (2003) suggests that “assessment procedures used to determine student learning should reflect a view of learning as a socially mediated and participatory activity, and recognise increasing participation in the community of practice as a mark of successful achievement” (p. 333).

4.8 Chapter summary

Initial attention in this chapter was given to behavioural, cognitive and constructivist theories of learning. Such theories have been influential in pedagogical practices in formal education settings for the past 50 years. These theories have made important contributions to our understanding of learning. Relevant aspects of these theories were discussed in relation to cooperative education and a number of these were considered to provide useful guidance for assessment. For example, constructivist views suggest that attention might be given to preparing students for their placement in ways that enable them to draw upon their existing knowledge schemas, and also find ways of probing their reactions to both the intellectual and emotional experiences they have. In addition, because each student learns and articulates their learning in different ways, it is advisable to allow for both verbal and imaginal expressions of their workplace

learning (e.g., through portfolio-based assessment). In order to develop in students what Dewey refers to as ‘purposeful action’, it would be beneficial for students to create an individual plan of action or set of personal goals for their placement. Piaget’s cognitive development theory was viewed as being useful in identifying the potential disequilibrium that students may experience in their work placement, and that it may be helpful if they are encouraged to stand back and make sense of their experiences through the process of reflection. Constructivist views of learning and experiential learning theories suggest that students’ metacognitive development, a key attribute for lifelong learning, may be enhanced through self-assessment and self-regulation, and an important aspect of this involves students critically reflecting on their experiences. The implications for assessment of critical reflections were outlined in Section 4.6.

Student learning and its assessment must also be viewed within the situated, social and cultural context of a community of workplace practice, and the theoretical implications these bring. These theories of learning suggest that students are active participants in their own learning; such learning occurring in a social world through its cultural forms. Such learning is also co-produced and mediated through students’ engagement in activities with co-workers, and the cultural tools and artefacts of the workplace. Furthermore, the nature of learning in the workplace is emergent, informal and often tacit, which contrasts with the formal, structured learning in education institutions, based on a fixed curriculum. Similarly, performance expectations in the workplace are embedded within their cultural setting and therefore are likely to be different for each student. In contrast, performance expectations in education institutions are the same for all students, typically manifested in pre-determined learning outcomes and related assessment criteria. This indicates that learning outcomes may need to be viewed more flexibly as broad intentions and directions for learning. In addition, the distributed nature of learning within a community of practice suggests that the assessment of student’s workplace performance needs to be viewed collectively through the lenses of both the assessor(s) and the student, and that increasing participation of the student should be a factor in recognising achievement. Finally, because student learning is mediated through engagement with co-workers, the guidance and support they receive influences what they learn and what they achieve. Such achievements relate to students’ current experience, knowledge

and levels of competence, as well as their understanding of what it means to become a 'journeyman' within a community of practice. Thus assessment practices need to recognise that students' active participation with others is likely to assist their learning and development. This suggests that formative assessment should play a key part in students' workplace learning.

Chapter 5

Methodology

5.1 Chapter outline

This chapter considers the methodological issues involved in research inquiries. Initial attention is given to the theoretical framework informing this study (Section 5.2), followed by how the research question was intended to be addressed (Section 5.3). A discussion is then provided on the paradigmatic influences on the ontological, epistemological and methodological approaches to inquiries (Section 5.4). This discussion includes the paradigmatic influences on assessment and learning, the paradigmatic approach adopted for this thesis, and the epistemological position of the researcher.

Section 5.5 considers the methodological approaches available to researchers, with particular attention given to the interpretive approaches that are employed in this study, including action research, communities of practice, and case study research. Section 5.6 discusses methods of data collection of relevance to this study, including questionnaires, interviews, observations, and document analysis. In addition, a brief discussion of how data are typically analysed in interpretive inquiries is also provided.

Section 5.7 provides details of the research design used in this study. This includes discussion of the four-phase approach to the data collection that occurred over an 18 month period, involving all key stakeholders. Attention is then given in Section 5.8 to how the qualitative and quantitative data collected were analysed. Section 5.9 considers rigour and trustworthiness in interpretive inquiries, and how this was addressed in this study. Finally, Section 5.10 focuses on the ethical and moral issues involved in research inquiries, and how these have been addressed in this study.

5.2 Theoretical framework for this thesis

Chapters 2, 3 and 4 reviewed different aspects of the literature of relevance to this study. The literature has provided useful frames of reference for viewing assessment in cooperative education. Each has contributed to an understanding of how the complexities involved in work-based learning and assessment can be considered. For this reason, this thesis intends to take a multi-theoretical approach in addressing the research question (outlined in Section 5.3).

A multi-theoretical approach to this study is consistent with the nature of the topic. According to Hager (1999) adopting *theoretical pluralism* to studies involving workplace learning is entirely appropriate, as it enables fresh, varied and different approaches to be taken in order to understand the intricacy of the issues and actions involved in a practice setting. This is supported by Garrick (1999), who argues that no single theoretical position can provide sufficient answers to the inherent complexities involved in workplace learning. Docking (1998) provides a number of reasons why a single, ‘monotheoristic’ approach to workplace assessment is inappropriate:

- Learning and performance in the workplace is complex and multidimensional and no one theory of learning or measurement can adequately reflect that diversity;
- Adopting a particular theory proscribes certain questions and activities so that validation of the theory becomes self-fulfilling;
- Adopting a particular theory may change practice to conform to the theory but not to serve the needs of the workplace (enterprise and employee); and
- Most theories have been borrowed from other fields and carry with them inherited qualities that may be benign in their field of origin but quite dangerous in the workplace.

Key theoretical ideas that underpin this thesis are now drawn from the review of the literature, and are presented here in a summarised form.

5.2.1 Purpose of assessment

- Assessment should help students to improve their learning (i.e., formative); and should be used to make evaluative judgements for certification (i.e., summative);
- Formative assessment and summative assessment are co-dependent and both should contribute to current learning needs, as well as future learning needs (i.e., should be sustainable);
- Assessment that is sustainable enhances students' capacity for being lifelong assessors of their own work and development needs, enabling them to become self-regulating professionals;
- Cooperative education involves students in complex learning in which performance criteria and standards are subjectively determined and variable in nature;
- Emphasis is best placed on formative development, rather than strict adherence to performance measurement. Such development includes the need for students to engage with the day-to-day performance standards embedded in workplace practice. Development also includes the need for students to learn from their experiences;
- Formative development is enhanced through internal and external feedback, both during and following the work placement; and
- Attention should be given to a broad range of cognitive and behavioural competencies needed in professional practice.

5.2.2 Validity and reliability

- Assessment must be both valid and reliable;
- Strict adherence to conventional forms of content and construct validity is problematic in cooperative education programmes. It is argued that a more 'common sense' approach to these are needed;
- Assessment in cooperative education needs to focus on: consequential validity, concurrent validity, fairness, systemic validity, and efficiency/economy; and
- Reliability of assessment is also problematic in cooperative education. Possible ways to enhance reliability included seeking multiple views

on performance, and engagement in dialogue (to address any uncertainties).

5.2.3 Theories of learning

- Constructivist theories suggest that attention be given to probing student reactions to their intellectual and emotional experiences. Assessment should allow for both verbal and imaginal expressions of workplace learning, recognising that each student learns and articulates their learning in different ways;
- It can be beneficial for students to create an individual plan of action or set of personal goals for their placement, in order to engage in ‘purposeful action’;
- Both constructivist and experiential learning theories suggest that metacognitive development is an important aspect of lifelong learning, which is enhanced through self-assessment and critical reflection;
- Sociocultural theories of learning suggest that learning occurs in a social world through its cultural forms, and is co-produced and mediated through students’ engagement in activities with co-workers, and the cultural tools and artefacts of the workplace. Thus assessment must embrace a more holistic view of learning and performance, and beyond a sole focus on the individual student;
- Learning in the workplace is emergent, informal and often tacit, which contrasts with the formal, structured learning in education institutions, based on a fixed curriculum. This suggests that learning outcomes need to be viewed more flexibly as broad intentions and directions for learning; and
- A community of practice view of learning suggests that assessment practices should encourage students to be active participants in their learning, engaging with others in ways that assist their learning and development.

5.3 The research question

As outlined in Chapter 1, the purpose of this study is to identify an assessment model for an internship, which forms part of an academic programme. The study is contextualised within a business undergraduate degree setting and will address the following research question:

How can a student's workplace performance and learning be assessed appropriately within a business internship?

Being 'assessed appropriately' is taken here to mean that the assessment method (model) used:

- i. Is informed and supported by the literature;
- ii. Is informed by current assessment practices and contextual influences affecting the business internship;
- iii. Is acceptable to the key stakeholders involved in the business internship in which the assessment model is adopted

Statements (i) and (ii) are addressed in two ways. First, they are considered in relation to the development of a new model of assessment, discussed in Chapter 6. Here, attention is given to a number of unresolved and sometimes conflicting stakeholder issues and concerns with the internship's current assessment practices. Analysis of these issues is provided, drawing on aspects of the literature review outlined in Chapters 2, 3 and 4. The analysis also informed the intervention dialogue between the researcher and the practitioner over a six month period leading up to the introduction of a new model of assessment over a two semester period. Second, the two statements, together with statement (iii), informed the research design and data collection, as well as the evaluation approach to this inquiry. The latter involves analysis of the data collected (findings) in Chapter 7, and discussion of the findings in Chapter 8. Discussion of the findings considers the value, acceptability and sustainability of the assessment model introduced. The research design used in this study is outlined in Section 5.7.

5.4 Theoretical paradigms informing the research

5.4.1 Paradigmatic influences on ontological, epistemological and methodological approaches to inquiries

Students learn many things whilst on a work placement; about the nature of work and its relationship with curricula theory, about the organisation and the staff that work there and, importantly, about themselves. The latter includes an understanding of their strengths and weaknesses, their likes and dislikes, their performance and development needs, and their career intentions. What students believe they have learned from their workplace experiences and how others involved, such as academics and employers, view this learning and its related assessment is influenced by how they construct knowledge and meaning; determined by their fundamental beliefs concerning the world around them. The beliefs or *paradigms* held by individuals are described more broadly by Lincoln and Guba (1985) as a metaphysical set of systematic beliefs:

[Such beliefs] represent a distillation of what we *think* [original italics] about the world (but cannot prove). Our actions in the world, including actions that we take as inquirers, cannot occur without reference to those paradigms: “As we think, so do we act”. (p. 15)

An example of this is provided by Schön (1987) in relation to everyday workplace problems faced by practitioners:

When a practitioner sets a problem, he chooses and names the things he will notice ... Through complementary acts of naming and framing, the practitioner selects things for attention and organises them, guided by the situation that gives it coherence and sets a direction for action.
(p. 4)

The beliefs or paradigms that we hold about the world and how we engage in it are underpinned by the ontological, epistemological and methodological assumptions we make (Burrell & Morgan, 1979; Cohen, Manion, & Morrison, 2000; Guba & Lincoln, 1989, 1994). These assumptions are discussed briefly here in relation to the three main paradigmatic approaches taken to education research, that is: *positivist*, *interpretivist* and *critical theory*. The interpretivist approach is sometimes referred to as *naturalistic* (Lincoln & Guba, 1985), *constructivist*

(Guba & Lincoln, 1989, 1994) or *subjectivist* (Eriksson & Kovalainen, 2008). A further term called *postpositivism* has been used to capture initial alternative positions to the prevailing positivist approaches historically used in human study. During the positivist era, the view of knowledge in the domain of business and management was that it was “functional by nature, and [that] there is a desire for universal truth that would hold across industries, businesses, cultures and countries” (Eriksson & Kovalainen, 2008, p. 17). Criticism of this objective, functional view of human knowledge and actions, led to increased attention being given to the social aspects of knowledge creation, both in the natural and social sciences. Denzin and Lincoln (2000) refer to this postpositivist era as combining the *modernist* and *blurred genres* phases, which created the foundations for interpretivism and critical theory.

Ontology refers to the nature of reality and what there is that can be known (Chinn & Brewer, 1993; Lincoln & Guba, 1985). It “concerns the ideas about the existence of and relationship between people, society and the world in general” (Eriksson & Kovalainen, 2008, p. 13). Taken from a positivist perspective, reality is viewed as being a tangible truth that can be predicted and controlled (Lincoln & Guba, 1985), and which is independent of the observer or enquirer (Boyd, 1994; Burrell & Morgan, 1979; Eriksson & Kovalainen, 2008). In contrast, an interpretivist or constructivist view considers there to be multiple, socially-constructed realities (Boyd, 1994; Neumann, 1997), which are determined through individual consciousness (Burrell & Morgan, 1979) resulting from social interaction (Eriksson & Kovalainen, 2008). According to Weber (2004), these two dichotomous views of ontology can be misleading. He argues that there are aspects of reality that exist beyond our perceptions of it, such as the consequence of certain human actions (e.g., jumping off the top of a tall building is almost certainly going to result in death). He considers that interpretivist ontology is more to do with how we perceive and interpret reality, and how we subsequently respond to this. A critical theorist is more likely to consider reality from a societal perspective, being enlightened by analysis of “competing power interests between groups and individuals within a society – identifying who gains and who loses in specific situations” (Kincheloe & McLaren, 2000, p. 281).

Epistemology refers to the nature and form of knowledge (Burrell & Morgan, 1979; Eriksson & Kovalainen, 2008) and how this is communicated between the knower and the known (Lincoln & Guba, 1985). The epistemological position taken by an individual is influenced by their ontological views. For example, *positivism* typically takes a *realist*, ontological view that there exists a real, objective world driven by natural laws and mechanisms (Guba & Lincoln, 1989; Neumann, 1997). From such a view, *positivists* hold that the inquirer must be independent of the object of inquiry, with the knower and the known having a distinct separation or *dualism* (Guba & Lincoln, 1989); the intention being to avoid any potential subjective influence and bias of the inquirer (Neumann, 1997). This positivist view has also been associated with *empiricism*, “the idea that observation and measurement are the essence of scientific endeavour” (Eriksson & Kovalainen, 2008, p. 18), although it is recognised that the term empirical inquiry is sometimes used in research studies across all three paradigmatic epistemologies. An *interpretivist* view is that the knower (inquirer) and the known (the object of the inquiry) are inseparable as they influence each other, therefore social reality is constructed through a process of interaction between the two (Eriksson & Kovalainen, 2008; Lincoln & Guba, 1985; Neumann, 1997). This subjectivist view means that “knowledge is available only through social actors” (Eriksson & Kovalainen, 2008, p. 15). In other words, knowledge is acquired through the social interactions between the inquirer and the people who are the subject of the inquiry. A critical theorist typically may focus their attention on the power relationship between themselves and the object of their inquiry, and between society, individuals and groups, recognising that power is an inevitable component of the way people construct meaning from the world and their role in it (Kincheloe, 1999).

Methodology is concerned with ways of finding out about knowledge and provides a framework used by an inquirer to identify how a subject, issue or problem can be studied (Eriksson & Kovalainen, 2008; Guba & Lincoln, 1989). This includes the quantitative and/or qualitative approaches used (e.g., ethnographic, experimental, action research, case study, narrative research, grounded theory), and the methods employed in collecting the data (e.g. questionnaires, interviews, observations). Ultimately, the methodological approach taken by inquirers is influenced by their ontological and epistemological

views (Guba & Lincoln, 1989). A *positivist* approach views knowledge as being objective and external to the individual and would typically adopt quantitative approaches to the inquiry, that would largely be experimental or manipulative in nature - “to make ‘real’ behaviours apparent” (Guba & Lincoln, p. 89) - involving hypotheses that are stated in advance and subsequently tested under controlled conditions (Cohen, Manion & Morrison, 2000; Neumann, 1997). In contrast, an *interpretivist* approach views knowledge as a subjective reality as “human intentions are crucially moulding and changing the reality” (Eriksson & Kovalainen, 2008, p. 20). Interpretivist methodological approaches would typically be hermeneutic and dialectic in nature. Hermeneutics is concerned with understanding human intentions and actions, and according to Eriksson and Kovalainen (2008) involves “the necessary condition of interpretation and understanding as part of the research process” (p. 20). Dialectic is the process used to arrive at ‘truth’, which occurs through dialogue among participants who exchange their individual constructions of reality, which in turn leads to shared meanings (Guba & Lincoln, 1989). *Critical theorist* may typically approach an inquiry by seeking to “empower change through examining and critiquing assumptions” (Ary et al., 2006, p. 469). Like interpretivists, critical theorists support a view of reality as being socially constructed. However, where they differ is that critical theorists focus their inquiries on issues of power and ideology (e.g., race, class & gender), typically using ethnographic or document/content analysis methodological approaches (Eriksson & Kovalainen, 2008). Essentially, the purpose of critical theory approaches to inquiries is not just to understand the phenomenon being investigated, but to critique and challenge the status-quo (Eriksson & Kovalainen, 2008).

5.4.2 Paradigmatic influences on assessment and learning

When considering the different paradigms in relation to assessment and learning, it is recognised that which one we choose will determine how we view and seek the ‘truth’ of students’ performance and learning. A *positivist* approach may view curricula knowledge as something that is objective and known; something that can be simply transmitted to the learner (Miller & Seller, 1990) and then subsequently assessed. For example, in criterion-referenced assessment it may be assumed that objective, precise criteria can be set out in behavioural

terms (Pitts, Coles & Thomas, 1999). Assessment then becomes simply a matter of an independent, objective assessor finding ways of measuring student performance against the criteria. However, as outlined in Chapter 3, positivist assumptions underpinning assessment have failed to adequately address complex learning situations such as those found in cooperative education. Thus traditional forms of validity and reliability are likely to be of less utility.

An *interpretivist* may view learning more holistically within the context that it is being used. In the situation of cooperative education, such learning is likely to be seen as being jointly constructed through the interactions of the student with his/her work colleagues and the tasks at hand, and also through their interactions with an academic supervisor as they attempt to understand their workplace experiences. These situated and contextual influences will see different learning occur for each student. Determining the ‘truth’ of each student’s performance and what they have learned would typically be viewed as a constructed reality, requiring interpretation by those involved in the assessment. This is particularly the case if narrative accounts of the learning are used, such as portfolios (Pitts et al., 1999). As Guba and Lincoln (1989) note, truth “is a matter of consensus among informed and sophisticated constructors, not of correspondence with an objective reality” (p. 44). Johnston (2004) notes that constructivist (interpretivist) approaches to assessment “stress the importance of local context, connection and holistic integration instead of the distance, independent observation and aggregated scores from separate assessments” (p. 399), which are a common feature of positivist approaches.

A *critical theorist* may challenge the hidden power relationships that influence student learning and how it is assessed. For example, who sets assessment standards and criteria can be viewed as a power issue (Chilisa, 2000). In relation to cooperative education, Johnston (2007) argues that to address curricula and pedagogical power issues this would require that: “fairness, equity, and social democracy are key goals” (p. 23). This suggests a focus on a learning and assessment agenda that encourages and enables students to question the prevailing norms of workplace culture, practice and related performance standards in order that they enhance their development as “critical thinkers and engaged citizens” (Johnston, 2007, p. 26). However, Eames (2003) provides a cautionary

note to such an approach, arguing that employers are likely to be less than receptive to social and political challenges from students, and that such “transformative actions would need careful planning and may be beyond the scope of many co-op programmes” (p. 49).

There is some overlap between interpretivist and critical theorist views of qualitative approaches to inquiries in education. For example, interpretivism or constructivism is sometimes associated with a *transaction* view of education in which meaning is collaboratively interpreted within a social and cultural framework (Van Gyn & Grove-White, 2004). Critical theorists, on the other hand, are often considered to have a *transformation* view of education; one that focuses on the emancipation from unjust and undemocratic social and educational practices (Howe, 1998). Schwandt (2000) points out that whilst some interpretivist inquirers may orient their research largely within a transaction orientation, there are likely to be transformational aspects to their inquiry. For example, whilst interpretivists may not be directly concerned with political transformation they are likely to still view their work as transforming the individual by viewing their research as: “dialogue, conversation, and education understood as an interpretational exchange that is self-transformative” (p. 202). Such self-transformation is often related to critical reflection (as discussed in Chapter 4).

In summary, there are three main paradigms that influence the ontological and epistemological approaches we may take to an inquiry, that is, positivism, interpretivism and critical theory. Furthermore, the ontological and epistemological approach we take also influences the methodology we adopt, which ultimately determines how we consider the ‘truth’ of students’ performance and learning. The paradigmatic approach adopted for this thesis is discussed next, and the methodological approach is discussed in Section 5.5.

5.4.3 Paradigmatic approach adopted for this thesis

The theories of learning contributing to this research, discussed in Chapter 4, are consistent with an interpretivist perspective. For example, interpretivists arguably view learning as a mediated process between the learner, the teacher and

the wider social and cultural environment. Assessment from this perspective recognises the subjective nature of learning and how it is developed. It pays attention to individual development, achieved through the interaction of the expert (e.g., the academic and the workplace supervisor) with the student and, in the case of workplace learning, through the engagement of the student with co-workers and the sociocultural influences of the business organisation. Thus learning and standards of achievement become a more holistic, subjective concept related to the individual learner, as opposed to a set of objective, externally imposed achievement standards applied to all students. Summative assessment could therefore be described as a joint activity involving the student and all those contributing to her/his development. In effect, an interpretivist view of summative assessment would place emphasis on its *formative* value to student learning. In referring to Guba and Lincoln's (1989) approach to evaluation in interpretive research, Allen (1995) notes that this can also be useful in helping us to understand assessment in relation to student learning: "In Guba and Lincoln's approach, evaluation is 'socially constructed' in a dialogue between evaluator and the person being evaluated" (p. 8). In relating this view of evaluation to educational assessment, the student and others involved (e.g., in student's learning, mentoring and performance), are seen as an integral part of the 'knowledge community'. From this perspective, student's workplace performance and learning are contextualised within the circumstances and influences of their placement, and the truth of their achievements is socially constructed through a dialogic, negotiated process (to extract meaning and reality) involving members of the knowledge community (e.g., the student, the workplace mentor, and the academic supervisor). Guba and Lincoln (1989) consider such a dialogic process as the exploration of views, enabling the parties involved to reach a consensus - as far as it is possible.

In conclusion, this thesis takes an interpretivist perspective and methodological approach in addressing the research question outlined in Section 5.3. It draws upon the assessment literature discussed in Chapters 2 and 3, and the theories of learning discussed in Chapter 4. Contextual issues affecting this research are provided in various ways throughout this thesis. In Chapter 1 the broad contextual background to this study, including the position of the researcher, was provided. The following paragraph outlines the ontological and

epistemological views of the researcher, and in Chapter 6 (Model development) details of the contextual issues involved in the intervention are outlined.

5.4.4 Epistemological position of the researcher

An interpretivist approach to the inquiry is consistent with the ontological and epistemological views of the researcher. I consider myself to hold an interpretivist ontological and epistemological view of the world, with some critical theory influences. I subscribe to the view that meaning is always subjectively held, and influenced by the contextual and situated nature of the sociocultural and socio-political environment at the time. From my own experiences and studies in business education, I believe ‘truth’ in inquiries is best achieved through multiple dialogues, recognising that views held by both participants and researchers are inevitably subjective in nature. However, awareness of the subjective influences informing the dialogue and the responses elicited, are equally important. As an academic working in tertiary education for over 15 years it has become apparent to me that assessment is disproportionately focused on the easier-to-measure curricula knowledge, rather than the actual learning and development of the student. Summative assessment has become so all-encompassing that formative assessment is a concept that is quickly disappearing from academic discourse and culture, with ‘teaching to the test’ the cultural rule, rather than the exception. My experiences also lead me to agree with Boud and Falchikov (2006) that norm referencing is still the ‘norm’ in higher education, despite institutional academic policies often stating something else. Despite these practice norms, I believe that most academics I have known accept that the complexities involved in cooperative education require a different approach to assessment. Furthermore, my academic colleagues are aware that internship-type courses are intended to provide a bridge between the world of academia and the world of work. I believe that this provides an opportunity to consider learning and assessment through a different lens. My conclusion is that an interpretivist approach can facilitate the active participation of the students and other stakeholders, not only in the process of the research inquiry itself, but also in the possible outcome of the inquiry; that is, the potential development of a holistic, dialogic and collaborative approach to assessment.

An interpretivist approach is also consistent with the methodological approaches used in this thesis. These approaches reflect the collaborative and dialogic nature of the inquiry in which the practitioner involved (the course coordinator of the business internship course) worked collaboratively with the researcher not only to improve current assessment practices, but also to address the research question: ‘How can a student’s workplace performance and learning be assessed appropriately within a business internship?’

5.5 Methodological approaches

This section briefly outlines the methodological approaches available in positivist and interpretive inquiries, with a particular emphasis on the latter. It also discusses the types of qualitative approaches used in this study, including: action research, communities of practice, and case study research.

Just as the ontological and epistemological position of the inquirer will influence the methodological approach adopted, the methodology will also influence the methods or tools used. Traditionally, quantitative methods have been associated with positivist modes of inquiry, while qualitative methods have been associated with interpretive inquiries. However, increasingly interpretivists employ a mixed-methods approach, involving both quantitative and qualitative methods (Patton, 1990). Common quantitative methods used in the more scientific, positivist tradition include experimental research and survey research. While both methods typically involve hypothesis testing, they are quite different in nature. Experimental research in the social sciences is described by Saxe and Fine (1981) as “the comparison of groups or individuals who have been differentially exposed to changes in their environment” (p. 45). Typically, such research includes attention to one or two hypotheses and a small number of variables. Surveys, on the other hand, tend to focus on numerous variables and can test multiple hypotheses (Neumann, 1997). They are also intended to produce “quantitative information about the social world and describe features of people or the social world ... The survey asks many people (called *respondents*) [original italics] about their beliefs, opinions, characteristics, and past or present behaviour” (Neumann, 1997, p. 228). Unlike experiments, which tend to focus on the responses to changing conditions imposed on small groups or individuals,

surveys are intended to sample a larger group of people who all answer the same questions. Typically, surveys take the form of interviews or questionnaires. Both these forms of survey instruments are also commonly used in interpretive inquiries and are used in this study (see Section 5.6).

There is a large variety of qualitative research approaches available. Examples include: case study; ethnography; participant observation; performance ethnography; phenomenology; ethno methodology; grounded theory; life history, action and applied research (Denzin & Lincoln, 2000). The nature of qualitative research is inextricably linked to the broad methods or approaches adopted by the inquirer and the data collection tools they employ in order to make sense of the meanings participants give to their world. Denzin and Lincoln (2000) sum up this relationship as follows:

Qualitative research is a situated activity that locates the observer in the world ... [who] turn the world into a series of representations, including field notes, interviews, conversations, photographs, recordings, and memos to the self. At this level, qualitative research involves an interpretive, naturalistic approach to the world. This means that qualitative researchers study things in their natural settings, attempting to make sense of, or to interpret, phenomena in terms of the meanings people bring to them. (p. 3)

The qualitative approaches used in this inquiry are outlined in the sections immediately following this, and include three inter-connected and complementary aspects, including *action research*, *communities of practice*, and *case study research*. Using a combination of qualitative approaches is also consistent with the nature of interpretive inquiries, as Denzin and Lincoln (2000) suggest:

Qualitative research involves the studied use and collection of a variety of empirical materials – case study; personal experience; artefacts; cultural texts – that describe routine and problematic moments and meanings in individuals' lives. Accordingly, qualitative researchers deploy a wide range of interconnected interpretive practices, hoping always to get a better understanding of the subject matter at hand. Hence there is frequently a commitment to using more than one interpretive practice in any study. (p. 3)

5.5.1 Action research

Action research is summarised by Greenwood and Levin (2000) as:

- Action research involves cogeneration of knowledge through collaboration. This knowledge is created through interaction between local knowledge and professional knowledge (e.g. of the researcher). The meanings constructed in the inquiry lead to some form of social change;
- Action research treats the diversity of the experiences and capacities within the social group involved as an opportunity for enrichment of the inquiry;
- Action research produces valid research results. Validity is viewed through the workability of the actual social activity engaged in and whether or not the actual solution to a problem arrived at solves the problem; and
- Action research is context-centred; it aims to solve real-life problems in context.

An important feature of action research is that it involves collaboration and reflection prior to action (Kemmis & McTaggart, 2000):

People want to make changes thoughtfully – that is, after critical reflection. It [an idea for change] emerges in situations where people want to think ‘realistically’ about where they are now, how things came to be that way, and, from these starting points, how in practice things might be changed. (p. 573)

Because of its collaborative nature, involving the researcher and practitioners, action research is sometimes referred to as *participatory action research* (Kemmis & McTaggart, 2005; Patterson, Santa, Short, & Smith, 1993), and typically involves shared ownership of the process among the parties involved (Eriksson & Kovalainen, 2008). As noted in Chapter 3, action research has its origins in Lewin’s experiential learning model outlined by Kolb (1984). The process involved in action research is described by Kemmis and McTaggart (2000) as:

A spiral of self-reflective cycles of: Planning a change; acting and observing the processes and consequences of the change; reflecting on these processes and consequences; and then re-planning, acting, observing, reflecting, and so on. (p. 595)

Eriksson and Kovalainen (2008) note that the cyclical nature of action research means most inquiries tend to be undertaken over lengthy periods of time.

This is because such approaches involve making changes to relevant aspects of the inquiry and/or the practice setting in each iteration of the cycle. But such “changes to the researched setting or the data-gathering process are impossible to finalise in a short period of time” (p. 199).

The competing nature of action and time has been used as the main criticism of action research approaches. Cohen, Manion and Morrison (2000) refer to the earlier work of Marris and Rein (1967) when identifying potential incompatible elements between action and research. In particular, that the two often work in different time frames, with actions sometimes curtailed due to the time needed to collect, transcribe and analyse the research data. Kemmis and McTaggart (2000) acknowledge that “the [action research] process may not be as neat as the spiral of self-contained cycles suggests ... the process is likely to be more fluid, open, and responsive” (p. 595). Consequently, strict adherence to a lengthy, multi-cycle process is not seen to be of critical importance. What does matter is “whether [the participants] have a strong sense of development and evolution in their practices, their understandings of their practices, and the situations in which they practice” (p. 595). Essentially, action research “is a learning process, the fruits of which are the real and material changes in (a) what people do, (b) how they interact with the world and others, (c) what they mean and what they value, and (d) the discourses in which they understand and interpret their world” (Kemmis & McTaggart, 2000, p. 596).

The contextual influences and variables affecting the practice setting in the research detailed in this thesis are such that a lengthy period of intervention cycles is impractical. For example, at the time of commencing the planning for the intervention, the environmental conditions affecting the business internship were relatively unstable. The institution in which the thesis was based had suffered a decline in student enrolments in a number of schools over the previous four years and was considering a review of the organisational structure. Furthermore, the business degree enrolment numbers had declined more than most, due to the competitive conditions in the local business education market. This decline had been paralleled by a number of changes in the structure of the Business School and the arrangements of the disciplines, as well as a large turnover of senior staff. Given these factors, there was some uncertainty in how this may impact on the

business degree and the business internship. In short, the adoption of a long period of action research did not fit well with the volatile conditions prevailing at the time. However, the broad principles governing action research, as outlined here, are compatible with the nature of this inquiry, particularly the collaborative and reflective components which are a key feature of the research design (outlined in Section 5.7).

5.5.2 Community of practice

The collaborative approach to this inquiry, involving the researcher and the participant mutually constructing knowledge to inform the intervention, is also consistent with taking a community of practice orientation to the inquiry: “The potential for practitioners and researchers to co-construct knowledge exists ... because communities of practice represent an on-going enterprise that invites both groups to share, build upon, and transform what they know about effective practice” (Buisse et al., 2003, p. 265). The notion of communities of practice was viewed as a useful framework for considering student learning through their participation in a community of work practice (see Chapter 4). Equally, this can be viewed as a useful methodological framework for the improvement of a community of education practice. Buisse et al. (2003) suggest that two theories of learning inform this approach: Situated learning and reflective practice. First, situated learning involves:

Shared inquiry and learning centred around issues, dilemmas, and ambiguity that emerge from actual situations in authentic practice settings ... In addition, creating meaning from activities and situations from lived experiences [such as past research, teaching and assessment experience] is reinforced by the fact the community of practice closely resembles the practice environment [i.e., the focus area of the study]. Finally, learning occurs with the context of social relationships with other members of the community, who have similar, if not identical, issues and concerns from the realm of practice. (p. 267)

The second approach, reflective practice, is viewed as enabling professional practitioners to adopt one or more of four reflective forms in their methodological approach. The two methodological approaches applicable to this study are: “Dialogic exploration of alternative ways to solve problems in a professional situation, and; [engagement in] critical thinking about the effects on

others of one's actions, considering social, political and cultural forces" (p. 268). These reflective approaches enable inquiry collaborators to document their experiences (e.g., through learning journals) and engage in on-going dialogue, in order to resolve a particular problem or issue being investigated. In taking a collaborative and reflective approach, inquirers not only "extend [their professional] understanding and command of their own work situations, but also advance the knowledge base for the field as a whole" (Buisse et al., 2003, p. 268).

Both situated learning and reflective practice theories provide valuable guidance in the approach taken to this study. First, in relation to situated learning, the issues surrounding assessment within the business internship were discussed informally between the researcher and the practitioner previously. Both share a concern about the difficulties in resolving the complex issues involved in the assessment of internships, which was an important motivation and influence in adopting a shared inquiry focus for this study. Second, both the researcher and practitioner were keen to take a reflective inquiry approach to the study. Apart from the benefit in using this to discover ways of findings possible solutions to the complex issues involved, such an approach would also assist in identifying both the potential and actual impact of any changes on the stakeholders involved. Furthermore, while not the focus of this study, it is recognised that there are mutual indirect professional development benefits in adopting a collaborative, interactive approach to the inquiry. Both the researcher and the practitioner, while working in different organisational areas/units, both work in the same educational institution and have an interest in developing a broad, institute-wide community of practice around cooperative education. While having had no direct involvement in the business internship course for a number of years, the researcher does have a background in business education and an active interest in cooperative education. Similarly, while the practitioner is actively involved in the business internship course and the assessment of learning, as an academic she also has an interest in broadening and developing her research capabilities and the pedagogical issues affecting cooperative education. Thus, while professional development is not the direct focus of this thesis, a community of practice approach to the inquiry is considered to have mutual beneficial outcomes beyond the immediate scope of the research. It is expected that both parties will move between the roles of newcomer and journeyman (or journeywoman) during the period of the inquiry, as

meanings, beliefs and understandings are constantly exchanged and reflected on; thus contributing to the professional development of both.

5.5.3 Case study research

Case study research is defined by Eriksson and Kovaleinan (2008, p. 117) as “the production of detailed and holistic knowledge, which is based on the analysis of multiple empirical sources rich in context”. Eriksson and Kovaleinan also note that the aim of case study research is “to make room for diversity and complexity [by avoiding] overly simplistic research designs”. Stake (2000) identifies three different types of case study inquiries. An *intrinsic case study* is one where the focus is on gaining a better understanding of the case in question “because, in all its particularity and ordinariness, this case itself is of interest” (p. 437). Such cases involve the in-depth study of a particular phenomenon (e.g., why a particular student is struggling with their learning). The subject or subjects of the case become the focus of the inquiry, and its value to understanding a wider general problem or potential utility in helping to learn about other cases is not important. An *instrumental case study* is one where the case in question “is examined mainly to provide insights into an issue or to draw a generalisation. The case is of secondary interest, it plays a supporting role, and it facilitates our understanding of something else” (p. 437), for example, whether a particular pedagogical approach enhances the learning of students with specific learning impairments. The third type is a *collective case study* involving several case studies which “are chosen because it is believed that understanding them will lead to better understanding, perhaps better theorising, about a still larger collection of cases” (p. 437), for example, looking at the outcome of the same pedagogical approach used in different educational contexts and settings.

Regardless of the type of case study used, case researchers tend to “seek what is both common and what is particular about the case” which leads to the “search for particularity [competing] with the search for generalisability” (Stake, 2000, p. 438). The term *generalisability* used here has different meanings depending upon the epistemological position taken by the researcher. For example, a positivist researcher would typically have little interest in exploring the intrinsic value and contextual factors of the individual case. Their focus

would be on finding commonalities or differences that can be scientifically linked to other cases. In contrast, an interpretivist researcher would wish to “learn enough about their cases to encapsulate complex meanings into finite reports – and thus describe the cases in sufficient descriptive narrative so that the readers can vicariously experience these happenings and draw conclusions (which may differ from those of the researchers)” (Stake, 2000, p. 439). Descriptive narrative used in interpretive inquiries enables the complex and highly contextual nature of cooperative education to be adequately described; which is perhaps why case study methodological approaches are commonly used in such programmes (Coll & Chapman, 2000). Geertz (1973) argues that in-depth descriptions can be provided by using *thick description*. This provides a means of identifying and interpreting the complexities and contextual influences that are present in the inquiry. For example, Geertz points out that “our data are really our constructions of other people’s constructions” (p. 9). Therefore, the use of thick description can be used to enable the reader to determine whether findings can be generalised in such a way that they provide for transferability to another context and situation. Further details of this are provided in Section 5.9.

This inquiry is presented as an instrumental case study. While the focus of the inquiry is on the assessment of student learning, it occurs within the context of a particular business internship course. The case study will therefore provide a framework for the in-depth exploration of stakeholder views in the contextual setting. These views will influence the utility of certain assessment methods and approaches, and inform their contribution to student learning.

In summary, while the overarching methodological approach to this interpretive inquiry is qualitative in nature, a mixed-methods approach is employed that draws upon both qualitative and quantitative data collection methods.

5.6 Data collection and analysis

The data collection methods used in this inquiry include questionnaires, interviews, observations, and document analysis. A brief outline of each of these

data collection methods is provided in this section. In addition, a brief outline of how data are analysed in interpretive inquiries is provided.

5.6.1 Questionnaires

A questionnaire is a data gathering technique that is usually, but not exclusively, used in survey research which enables the inquirer “to gather information from a large sample of people relatively quickly and inexpensively” (Ary, Cheser Jacobs, Razavieh & Sorensen, 2006, p. 407). Questionnaires can be used to extract numerical data from closed questions (that can then be statistically analysed), or can be used to extract meanings from open questions. The main difference between open and closed questions is that open questions do not seek restricted responses (e.g., yes/no or numbers on a Likert scale). Many questionnaires, particularly in interpretive inquiries, use a mix of both.

Questionnaires can be administered in different ways. For example, they can be administered directly in person, by mail, or electronically (e.g., web or email). They can also be administered by telephone, although such a method is usually referred to as a telephone interview (as discussed in Section 5.6.2). The type of structure chosen depends on a number of factors. For example, the purpose of the questionnaire, the nature of the study, the timeframe available for administering the instrument, and the population size of respondents. In many studies it may not be practical to administer the questionnaire to all respondents (this equally applies to conducting interviews, discussed in the following section). For this reason, some form of sampling is usually required. The first step in sampling is to identify the target population. There are two main types of sampling: probability sampling and non-probability sampling (Ary et al., 2006). The former is undertaken to ensure that “every element in the population has an equal chance of being selected” (p. 169). The latter is used when the “enumeration of the population elements is difficult” (p. 174). In the case of this study the population was relatively small for all stakeholder groups therefore a questionnaire could be administered to the whole population and views extracted quickly. Details of how questionnaires were used in this study are provided in Section 5.7.

5.6.2 Interviews

Interviews enable in-depth exploration of respondent views that are not easily elicited through questionnaires. They also provide the interviewer with the opportunity to “observe the subject and the total situation in which he or she is responding” (Ary et al., 2006, p. 409). In addition, they enable the opportunity to clarify meanings (to questions or answers). Interviews are used in different ways depending upon the methodological nature of the inquiry. For example, in positivist research the focus would be more on gathering factual information. Questions may typically be structured around finding answers to a containable problem or event from respondents, and then analysing this in ways that find the “true picture of what happened” (Eriksson & Kolainen, 2008, p. 79). In interpretive inquiries, interviews serve the purpose of considering how meanings are constructed from the interactions between the interviewer and interviewee. Typically, the interview becomes a conversation in which “the researcher can take a more or less active role in the conversation ... [using any] pre-planned questions as initiators of conversations, which can flow into many directions, depending upon how the interaction proceeds” (p. 80).

Interviews can be structured, semi-structured, or unstructured (Cohen et al., 2000, Eriksson & Kolainen, 2008). Positivists tend to use a structured interview in which the same questions are asked to each interviewee. In contrast, interpretivists either use semi-structured or unstructured interviews. With semi-structured interviews the inquirer will typically use an interview guide which “will contain an outline of topics to be covered, with suggested questions” (Stake, 1996, p. 129). Stake also notes that the flow and nature of an interview, particularly how a respondent answers the questions, will mean the interviewer will use their judgement on how closely they stick to the guide and initial questions. With unstructured interviews there may be an initial guide and even a few pre-determined questions, but the inquirer will typically have the freedom to move the conversation in any direction that seems of value at the time. Essentially, the interview is often led by what the participant talks about. The intention of unstructured interviews is to explore the topic of interest from the participant’s point of view.

Interviews can either take the form of face-to-face individual interviews, face-to-face group interviews (or focus groups), or telephone interviews. Each type has different advantages and disadvantages, which are briefly discussed here. With face-to-face interviews the interviewer can establish rapport with the interviewees and can be reasonably flexible with where the conversation may lead, as time is less likely to be an inhibitor (unlike telephone interviews). However, face-to-face interviews can be time consuming, can increase interviewer bias, and can be expensive (Ary et al., 2006). Focus group interviews share similar advantages and disadvantages to individual interviews. They also have the added advantage of enabling the researcher to not only gather individual views, beliefs, opinions and emotions, but also how the group “bridges between different understandings, and how they construct shared conceptions during the discussion” (Eriksson & Kolainen, 2008, p. 174). In other words there is a group dynamic that creates further valuable data. However, focus groups can inhibit and influence responses of individuals, particularly if there is a dominant member of the group. Unlike face-to-face and focus group interviews, telephone interviews can be conducted relatively quickly, particularly when people are scattered over a geographic area. They can also enable larger sampling of the population, thereby gaining a more accurate picture of the views of the whole group. The other advantage of telephone interviews noted by Ary et al. (2006) is that “respondents have a greater feeling of anonymity ... hence less interviewer bias and less social desirability bias than with [face-to-face] individual interviews” (p. 410). Telephone interviews can also be cheaper, less time consuming and more convenient. However, it is recognised that they can enable less rapport, are unable to pick up meanings that may be construed from body language and other non-verbal actions or inactions and, because of the nature of telephone interviews, respondents are unlikely to give the same amount of time to the interview; therefore questions asked may need to be shorter, more structured, and less conversational.

Finally, determination of who to interview is usually determined by population size. As discussed in the previous section, where the population is too large, some form of selection based on sampling is usually employed. In this inquiry, all employers were selected for interview by telephone (this recognised geographical distribution and enabled maximum participation), so no sampling

techniques were required. However, the population of the remaining target groups for interview (students and academics) were too large for all group members to be interviewed, but too small to select ‘representative’ members through standard sampling techniques in order that statistical inferences could be made to the whole population, as described by Ary et al. (2006) and Patton (1990). Therefore, a form of ‘purposeful’ sampling was adopted in this study in which interviewees were judged by the researcher to be broadly typical of the population. It is recognised that because of the relatively small numbers involved, both in the sample size and the total population, that the views of those interviewed cannot be considered to be ‘representative’ of their group (i.e., students and academics). Further details of how individuals were selected for interview are provided in Section 5.7.

5.6.3 Observations

Observation is a common method of collecting data in both positivist and interpretive inquiries (Ary et al., 2006). However, unlike positivist inquiries which often “use checklists and behaviour observation tools”, interpretive inquiries “rely on narrative or words to describe the setting, the behaviours, and the interactions” (p. 474). As an observer, the researcher can either take an active role or a passive role. Ary et al. identify active roles as including: complete covert participation (i.e., researcher engagement without participants knowing they are being studied), participant as an observer (i.e., overt engagement with the full knowledge of participants), or collaborative partner observer (full engagement with the participant throughout the inquiry, as is often the case in action research). Passive roles include: observer as participant (i.e., the researcher may establish initial rapport or answer questions if asked, but largely takes no part in the interactions) or complete observer (the researcher is hidden from the group under observation). There are advantages and disadvantages of each approach, and no one approach is necessarily better than the other. In brief, the advantage of taking an active role is that it enables the researcher to engage in dialogue to gain further insights and meanings from the conversation. The advantage of taking a passive role is that the researcher avoids potential bias and allows participants to steer the direction of their conversations without being influenced by the researcher. The different observer approaches used in this inquiry are outlined in Section 5.7.

Finally, observation can also be undertaken with other data collection techniques. For example, in interviews the researcher can audio-tape the conversations and use field notes, taken during and/or following the interview, to capture their observations in order to enrich the meanings that can be derived from the interview.

5.6.4 Document analysis

Documents reviewed and analysed in interpretive inquiries can be wide ranging and include written, physical and visual materials (Ary et al., 2006). Written work is the most common form of documentation used in interpretive inquiries, and may include “excerpts, quotations, or entire passages ... from programme records; memoranda and correspondence; official publications and reports; [and] personal diaries” (Patton, 1990, p. 10). Patton asserts that documents and files can be valuable information resources to qualitative inquirers. In this study the documents were restricted to a selection of six student portfolios and the summative grades of students (including self-assessed grades, validator grades, and final approved grades) across two semesters. Ary et al. (2006) also point out that it is important to establish the authenticity of documents in research. For the portfolios this was not an issue, as original portfolios were obtained, with relevant pages photocopied by the researcher. Student self-assessed grades and validator grades were largely obtained directly by the researcher through observation (as outlined in the previous section), with a few obtained through the participant. Final grades were confirmed through the business degree programme director. Details of the document analysis undertaken in this thesis are discussed in Section 5.7.

5.6.5 Data analysis in interpretive inquiries

Interpretive inquiries can create extensive amounts of qualitative data and an important part of the analysis is to distinguish between the important and not-so-important data. The literature identifies many different ways in which qualitative data can be analysed. For example, Kvale (1996) identifies five different approaches to analysing interview data involving *meaning condensation*, *meaning categorisation*, *narrative structuring*, *meaning interpretation*, and a

holistic approach which he refers to as *ad hoc methods*. On the other hand, Miles and Huberman (1994) provide 12 categories or stages for extracting meaning, with particular emphasis placed on identifying relationships between variables and the importance of coding. An approach used by Ary et al. (2006) is in using three broad stages of: *familiarisation and organisation, coding and recoding, and summarising and interpreting*. Coding and recoding is often referred to as content analysis (Eriksson & Kolainen, 2008; Patton, 1990), although Morgan (1997) notes that content analysis is a slightly broader concept as it may or may not be based on a coding scheme. In summary, coding and recoding involves “the identification of categories and themes and their refinement” (Ary et al., 2006, p. 492). How the qualitative data were analysed in this thesis is discussed in Section 5.8. The section also gives attention to how the small amount of quantitative data collected were analysed.

5.7 Research design

5.7.1 Introduction

This study revolves around the development, introduction and evaluation of a new assessment model for an internship in a business degree. While the study was initiated by the researcher, it was set up as a collaborative, interactive inquiry, with the researcher driving the methodological process (through the methods of inquiry) and the practitioner (the business internship coordinator) driving the practice changes (through intervention in the internship’s assessment practices). Because of the collaborative nature of the study, these two components were mutually shared and discussed. The development and implementation of the new assessment model, occurred over an 18 month period, informed by: the literature, as discussed in Chapters 2, 3 and 4; the theoretical framework outlined in Section 5.2; the situated affordances, constraints and influences of the practice setting; and the views of the stakeholders involved.

Section 5.7.2 looks at the purpose of the data collected in relation to the research question in this thesis. This is followed by a description of the four phases involved in the data collection itself (Sections 5.7.3 to 5.7.6). The first phase provides a brief outline of the development of the assessment model prior to

its implementation, with full details provided in Chapter 6. The final version of the assessment model was introduced over a two semester period. Phases two to four incorporate the collection of data from the stakeholders involved that occurred over the two semesters. How this data were analysed is outlined in Section 5.8, with details of the findings provided in Chapter 7. The stakeholders involved in this study include: students; employers (workplace hosts); academic supervisors, academic validators (moderators); the practitioner (Alice – a pseudonym); and the business degree programme committee.

5.7.2 Purpose of the data collected

As outlined in Section 5.3, the purpose of the data collection was to obtain stakeholder views in order to identify the value, acceptability and sustainability of the new portfolio assessment model. Determining the acceptability of the model included: the adequacy of student preparation for completing the portfolio (i.e., the preparatory class sessions, the materials provided and the on-line support given); the support provided by the workplace host and the academic supervisor; the value of the process involving collaborative assessment of students' work performance; and the requirements and overall acceptability of the portfolio model, including the relationship between its different components and its perceived fairness. The value and sustainability of the assessment model is considered in relation to relevant aspects of the literature discussed in Chapters 2, 3 and 4. Of relevance to the data collection was the need to ensure attention was given to the validity and reliability of the model, and its impact on learning. For example, given the approach to summative grading in the portfolio model involves students in self-determining their own grades, attention is given to the *validity* and *reliability* of this approach by comparing students' self assessed grade with the final grades awarded following the academic moderation (validation) process. In respect to the impact on learning, stakeholder views are sought on how the assessment model has influenced and impacted on student learning, and the subsequent value they place on this. This is largely obtained through questionnaire feedback, individual interviews, group interviews, and through the document analysis of a sample of student portfolios.

5.7.3 Data collection phase one: Assessment model development

The initial development of the new assessment model took place over a six month period, prior to its implementation. The development began when the practitioner (Alice – the business internship coordinator) agreed to work with the researcher (referred to hereafter as either ‘me’ or ‘I’) to address a number of unresolved assessment issues. Alice and I had known each other for a number of years, being part of an informal, community of practitioners within the institution who had an interest in cooperative education. Importantly, having been involved in coordinating the business internship prior to Alice taking over about five years earlier, I was interested in helping to resolve the on-going assessment issues, many of which were common to others involved in cooperative education elsewhere in the institution. The development process was interactive and cyclical in nature, informed by my discussions with Alice. In effect, I took a ‘collaborative partner observer’ role (see Section 5.6.3) throughout the inquiry. Our reflections were cycled around weekly meetings, in which issues identified from the practice setting, including the prior and often contradictory views of the stakeholders involved, served as the basis for discussions, readings, further reflections, and changes to the model. These weekly meetings were iterative in nature, with different aspects of the model developed, revisited and refined. In total, 14 different versions of the model emerged from these iterations leading up to the formal approval and subsequent implementation of the final version. Chapter 6 provides the contextual background, issues and processes involved in this development, together with details of the final model implemented.

5.7.4 Data collection phase two: Mid-semester feedback

The next phase involved eliciting feedback from students on the assessment model during its introduction in the first semester. Approximately two thirds of the way through the semester a workshop was held in order to enable students to discuss their placement experiences to date and also to identify any issues affecting preparation of their portfolios. Given that the nature of portfolio assessment was something that students had not experienced before in the business degree, it was felt that the opportunity for them to talk about this before its completion would be important (this workshop was in addition to four

preparatory workshops held prior to the placement commencing, as is outlined in Chapter 6). The workshop was run by Alice, and I took an observer as participant role (see Section 5.6.3), so as to avoid potential researcher influence on student views. Field notes were taken during the workshop and these were later used for informing a conversation with Alice after the meeting; the intention being to take any relevant actions if needed. Further details of the workshop are provided in Chapter 7.

5.7.5 Data collection phase three: Semester one stakeholder feedback

The primary, although not exclusive, focus of the data collection in phase three was to gather relevant stakeholder feedback on the acceptability of the portfolio model. This evaluation would also enable Alice and I to consider what changes to the model, if any, were required prior to the commencement of the second semester. Due to the short timeframe between the end of semester one and the commencement of semester two there were limitations on the type and amount of data that might be gathered. This also influenced the methods and tools used for collecting the data. A mix of quantitative and qualitative methods were used, incorporating a variety of data collection techniques including: questionnaires (students and workplace hosts), focus groups (academic supervisors), field notes from observations (academic validators), and document analysis (students' grades). These are briefly outlined here by stakeholder group.

5.7.5.1 Students

A questionnaire was designed and piloted in order to check for validity, reliability and practicability (Cohen et al., 2000). The pilot included Alice's feedback, as well as two business students, who had previously completed the business internship. One change suggested by students concerned the length of the questionnaire (i.e., that it was a little long). However, Alice and I decided not to change it in semester one as the questionnaire was to be largely administered to students in person when they handed in their portfolios (and would therefore not have a major impact on response rates). A detailed questionnaire was used in order to identify students' views on different aspects of the course that may impact, directly or indirectly, on the value and acceptability of the portfolio

assessment. This would also enable the identification of any specific areas that may need attention prior to semester two and would also serve to give direction to follow-up interviews if necessary. However, we agreed that the questionnaire administered to students in the second semester would be shortened, as appropriate, and would also consider any changes made to the portfolio model and related support issues.

The questionnaire (see Appendix A) asked students to indicate their level of agreement with a broad range of statements. A five point Likert scale was used for each question, ranging from 1 (strongly disagree) to 5 (strongly agree). These statements were incorporated into five areas: value of the course; assessment of the course; organisation of the course; academic supervision; and workplace host supervision. The questionnaire also provided space for students to give reasons or comments for their numeric response to each question. In addition, students were invited to provide overall comments on what they liked about the course, and how they thought the course could be improved. The questionnaire was administered to all students on completion of their placement during the handing in of their portfolios. This method of instrument administration was chosen in order to maximise the response rate, recognising that low response rates have less statistical power (Muijs, 2004), reducing the inferences that may be taken from the results. A few students, who had commenced their placement late or had been unable to complete their placement as scheduled because of factors beyond their control, were given extensions for portfolio completion beyond the hand-in date. Some other students submitted their portfolios earlier than the hand-in date due to other commitments. These students were sent questionnaires by mail. Details of response rates, analysis, and findings, are provided in Chapter 7.

Finally, students' summative grades were analysed by comparing students' self-assessed grades with academic validators' grades and the final grades awarded. Details of the validation grading process are provided in Chapter 6 and an analysis of the grades is provided in Chapter 7.

5.7.5.2 *Academic supervisors*

While relevant preparation and support for students undertaking business internship placements is provided by Alice as the coordinator, an academic supervisor is also allocated to each student. Full details of the academic supervisor's role are given in Chapter 6. In brief, their role includes provision of feedback on students' weekly learning journals, participation in the collaborative assessment of students' workplace performance, and giving general advice and mentoring support to students (including progress on work objectives and personal goals for the placement, and portfolio completion). Given the important influence academic supervisors have on students' learning and performance, including how students complete their portfolios, it was felt that face-to-face interviews would elicit more valuable information than questionnaires. Also, as many academics take professional development and annual leave during the period between semesters, it was recognised that there may be insufficient time to distribute, collate and analyse questionnaires first. As the timeframe was tight between semesters, group interviews (focus groups) were held, rather than individual interviews. Focus groups also have other advantages, including providing valuable insights to participants' thinking (Ary et al., 2006; Good, Wandersee & St. Julien, 1993) and importantly, as Ary et al. note, "they are helpful when a researcher is studying a topic that is new or one that has little information available" (p. 481).

The intention of the focus groups was to gain supervisors' views on a range of issues that impact on the assessment model, particularly their understanding of portfolio requirements, their acceptability of the portfolio model, and their perceptions of the impact of the portfolio on student learning (and how this may inform consequential validity). These issues were explored through questions linked to their experiences of student supervision and the collaborative assessment process, and the portfolio as a self-development and self-assessment tool. A semi-structured approach was taken to the interviews and this was reflected in the nature of the preparatory questions, which served more as a guide and an outline of the topics to be covered (Kvale, 1996). As a guide it enabled questions to be asked that were thematically focused "with regard to its relevance to the research theme" and provided sufficient flexibility to have a dynamic focus,

enabling the interviewer to use “judgement and tact [to determine] how closely to follow the guide and how strongly to pursue an individual subject’s answers” (Kvale, 1996, p. 129). In practice, the nature of the dialogue in the focus groups did not always enable all of the questions in the guide to be asked. Similarly, questions not in the guide were sometimes asked in response to the dialogue occurring at the time. Details of the interview guide are provided in Appendix B.

In semester one, 17 academics were involved in the one-to-one supervision of business internship students. Due to other commitments a number were unavailable to attend the focus groups. In total, three focus groups were held involving nine academics. These nine included a mix of: experienced and inexperienced supervisors; male and female staff; and the five different business disciplines. The mix of this group was not dissimilar to the mix of all 17 supervisors and could be said to be broadly representative. Each focus group session was audio-taped and transcribed, and consent forms were signed by each participant. Transcribed data from each tape were then sent to the participants for checking of accuracy. Details of the findings are provided in Chapter 7.

5.7.5.3 Academic validators

As is outlined in Chapter 6, a key feature of the portfolio assessment model is that it is evidence-based. From the evidence collected, students self-determine their summative grade prior to handing in their portfolio. This is then subject to academic moderation (referred to in the model as validation). The validation process in semester one had two components. First, a preparatory workshop was set up to prepare seven academic validators (selected by Alice from the 17 academic supervisors) for the validation. This involved outlining the validation process, including providing further clarification of the portfolio assessment criteria and evidential requirements. Alice ran the workshop and I took a participant as observer role (see Section 5.6.3). Field notes were taken of the workshop, details of which are described in Chapter 7. These data were gathered in order to obtain further views of academics that may be of relevance to the research. At the end of the workshop, the submitted portfolios were distributed randomly to the ‘validators’, ensuring that validators did not receive portfolios of students they supervised. Alice also chose to validate a few portfolios herself.

The second component of the validation process involved the validators meeting two weeks later (referred to as the validation team meeting) to discuss any differences between their assessment of the portfolio evidence provided and that of the student. While all validators were invited to participate in the validation team meeting, it was recognised that not all would be able to attend due to other commitments. Those unable to attend gave their completed validation forms to Alice, together with the related portfolios. Four validators attended the team meeting, including Alice who acted as the facilitator. As the researcher, I took an observer as participant role (see Section 5.6.3). I deliberately played no part in the dialogue, making it clear that any questions needed to be directed at Alice. This stance was taken so as to avoid any potential influence I may have on decisions made. The meeting was audio-taped and transcribed, and consent forms were signed by each participant. In addition, as I was not an active participant, field notes of the meeting were also taken. This enabled other non-verbal components such as facial expressions and bodily posture to be considered, providing a richer context for subsequent interpretation and analysis (Kvale, 1996). The results of the meeting are described in Chapter 7.

5.7.5.4 *Employers (Workplace hosts)¹*

As with students, a questionnaire was designed to elicit feedback from workplace hosts on their views of the business internship and the collaborative assessment process (see Appendix C). The questionnaire was designed and piloted using three workplace hosts who had provided placements for business internship students in previous semesters. As with the student questionnaire, this served to check for validity, reliability and practicability (Cohen et al., 2000). The questionnaire invited employers to indicate their level of agreement with a number of statements. A five point Likert scale was used for each question, ranging from 1 (strongly disagree) to 5 (strongly agree). These statements were incorporated into three areas of evaluation: students' work/project; the education institution's organisation, communication and support; and the collaborative assessment of student performance and development. Workplace hosts were able to provide reasons for their numerical responses should they wish. The final part

¹ As is outlined in Chapter 6, most students are not paid for the work they do on placement, therefore there is no employment relationship. The term 'workplace host' is therefore used rather than 'employer'

of the questionnaire invited workplace hosts to provide overall comments on what they liked about the course, and how the course might be improved.

The questionnaire was administered to workplace hosts by telephone therefore technically this can be considered as a telephone interview. This method of instrument administration can enable “faster completion, with relatively high response rates” (Ary et al., 2006, p. 410), both of key importance here as discussed earlier. This method was used because it also enabled the researcher to engage in rapport with the workplace host and probe further on the numerical responses given. However, it was recognised that time limitations may restrict the extent to which this might be possible therefore probing was restricted in two ways. First, workplace hosts were informed at the commencement of the survey that they could elaborate on their numerical responses at any time should they wish. Second, during the interview if they disagreed with a particular statement (i.e., scoring a ‘1’ or ‘2’ on the five point scale) the researcher invited them to give reasons for this.

Prior to completion of the survey, all workplace hosts were informed about the purpose of the survey and given an assurance that their responses would be treated in confidence. Immediately following the interview employers were sent an information sheet outlining details of the research, confirmation of confidentiality and a statement indicating that they could withdraw from this study at any time. In addition, a copy of workplace host responses to the survey was sent to them, and they were invited to check this for accuracy and add any further comments should they wish. Details of responses and findings are provided in Chapter 7.

5.7.6 Data collection phase four: Semester two stakeholder feedback

A key focus of the data collection in phase four was to gather relevant data from stakeholders to consider the value and sustainability of the portfolio model, particularly in relation to its impact on student learning. In addition, attention was given to gathering further data to elicit stakeholder feedback on the acceptability of the portfolio model. The type and amount of data collected in phase four was influenced by the data collected and analysed in phase three. As with phase three a

mix of quantitative and qualitative methods was employed. Data collection techniques used in phase four included: questionnaires (students), individual interviews (students, Alice), a focus group (academic validators and supervisors), field notes (business degree programme committee), and document analysis (student portfolios, student grades). No further data were collected from workplace hosts directly (further discussion of this is provided in Chapter 7). The data collection process is briefly outlined here by stakeholder group.

5.7.6.1 Students

The questionnaire used in semester two was similar to that used in semester one. A few changes were made to take account of the feedback provided in the piloting of the draft questionnaire in semester one (i.e., reducing the number of questions), and also to take account of some changes made to student preparatory materials and support in semester two. Two students who had completed the business internship course in semester one were asked to provide feedback on the revised pilot questionnaire. The main purpose of the questionnaire in semester two was to identify issues that could be explored further in individual interviews and also to add further views on the value and acceptability of the portfolio assessment model. The questionnaire (see Appendix D) was structured the same as the questionnaire in semester one, asking students to indicate their level of agreement with a broad range of statements and using the same five point Likert scale. It also allowed for specific and general comments to be made. The questionnaire was administered to all students on completion of their placement during the handing in of their portfolios. Further details, including response rates, analysis, and findings, are provided in Chapter 7.

The second type of data collected from students was through individual interviews. While the questionnaires completed at the end of each semester provide useful numerical data, and some qualitative data, the nature of questionnaires does not enable in-depth exploration of responses and the meanings attributed to them. The value of interviews, as Ary et al. (2006) note, is that it enables exploration of meanings by allowing participants to express their “opinions, beliefs, and feelings about the situation in their own words” (p. 480). The purpose of the student interviews was to explore students’ views of the

portfolio assessment model in more detail, with particular attention given to the consequences of the portfolio on their learning, and the value they attribute to the different components involved. Student responses from the questionnaire in semester two also provided some useful information for the interview questions. As with the academic focus groups a semi-structured approach was taken to the interviews, using an interview guide that was thematically and dynamically focused. This structure enabled flexibility to explore issues where needed. As with the academic focus group, some questions not in the guide were sometimes asked in response to the dialogue occurring at the time. Details of the interview guide are provided in Appendix E. In determining the students for interview, a form of 'purposeful' sampling was employed (as discussed in Section 5.6.2). A key purpose of the selections made in this study was to ensure that the views of a broad range of students were considered. Six students were selected for in-depth interviews. Student selection was based on ensuring a reasonable mix of: age groups, ethnicity, gender, local (domestic) and international students, students awarded a 'Pass' grade and those awarded a 'Merit Pass' grade, and different business disciplines (accountancy, marketing, etc.). Given the small numbers involved, it is recognised that the sample selected cannot be viewed as being representative of all students who completed the internship. A brief background of the students selected is provided in Chapter 7. Each student interview was audio-taped and transcribed, and consent forms were signed by each participant. Transcribed data from each tape were then sent to the participants for checking of accuracy.

The third aspect of data collected from students involved document analysis of student portfolios. The overall purpose of reviewing the portfolios is to consider how the different components of the portfolio have contributed to students' learning, from the students' perspective. The review focused on the way evidence was provided by students for meeting each of the four learning outcomes (discussion of the course's learning outcomes is provided in Chapter 6). Six portfolios were selected from the 33 submitted. The only purposeful aspect of the selection process was to ensure inclusion of portfolios from students undertaking all five business majors - accountancy, finance, management, information systems, and marketing. In addition, the process ensured that the portfolios selected included the different combinations of self-assessed grades and validated

grades. The intention of including a range of discipline backgrounds and grade combinations was to reveal any similarities and differences in the way students compiled evidence for their portfolios. Further details and findings are provided in Chapter 7.

5.7.6.2 Academic validators and supervisors

In semester two a similar validation process occurred to the process that operated in semester one, as outlined earlier. Full details of the process used in semester two, together with the findings, are provided in Chapter 7. As the researcher, I took an observer as participant role (see Section 5.6.3) at the validators' team meeting, having no part in the dialogue and no involvement in the determination of the outcome.

Immediately following the validation process, all the validators participated in a focus group interview. The combined experiences of both supervision and validation enabled these five academics to comment on all aspects of the portfolio assessment process. Three of these five academics had participated in the validation team meeting in semester one, with the remaining two participating in this process for the first time. A semi-structured interview was conducted, based initially around three questions:

- What has been your experience of the quality of the portfolios this semester?
- What aspects of the assessment process are working well?
- What areas can be improved?

Both the validators' meeting and the focus group meeting were audio-taped and transcribed, and consent forms were signed by each participant. In addition, field notes were also taken. Transcribed data from the taped recordings were sent to the participants for checking of accuracy.

5.7.6.3 Business internship coordinator

Following completion of semester two a formal interview was conducted with the business internship coordinator (Alice). Given Alice's considerable

involvement in both the development and implementation of the model her views on the portfolio assessment over the previous year were particularly important. While some of her views on the portfolio assessment were expressed at the validators' meeting outlined in the previous section, the purpose of a separate interview was to explore her views in more depth, and to elicit other related feedback that she may not have had the time to provide at the meeting. A semi-structured interview approach was taken based around the same three broad questions used in the validators' meeting. These questions served to create an interactive dialogue which enabled exploration of some issues in more depth and to explore different aspects of the portfolio's introduction. The meeting was audio-taped and transcribed, and a consent form was signed. Transcribed data from the taped recordings were sent to Alice for checking of accuracy. Details of the findings are provided in Chapter 7.

5.7.6.4 Business degree programme committee

The final component of the data collection involved the researcher presenting the evaluation of the portfolio assessment model to the business degree programme committee. As outlined earlier, the introduction of the business internship portfolio assessment included the need to gain stakeholder feedback (evaluations), with a summary being presented to the business degree programme committee. Given the portfolio assessment needed to be approved in time for semester one of the following year, there was insufficient time to analyse all the data collected in semester two prior to the presentation. However, given semester two data focused mainly on stakeholder perceptions of the impact of portfolio assessment on student learning, rather than stakeholder acceptability of the portfolio model (which was available from semester one), this was not seen as problematic. Outstanding stakeholder feedback in semester two would be noted as part of the presentation to the committee, and if required a separate meeting could be held to discuss this. I took a participant as an observer role in the session (i.e., overt engagement with the full knowledge of participants). The findings from the following data collected at the end of semester one, were presented:

- Student evaluation (via questionnaire);
- academic supervisors' evaluation (via focus groups);
- workplace host evaluation (via questionnaire); and

- analysis of grades.

In addition, relevant aspects of the findings from the following semester two data were presented:

- Academic validators and supervisors (via a focus group);
- course coordinator (via interview); and
- analysis of grades.

Nine senior staff members attended the committee meeting, including Alice. Six of the nine academics present had supervised students during the year, so had experience of the portfolio assessment. Two academics were also part of the School's four-member management team, one of whom had supervised students in semester two. Notes were taken of the feedback received during the meeting, which were supplemented by formal minutes taken by the secretary to the committee. Pseudonyms were used in the reporting of the findings presented in Chapter 7.

5.8 Data analysis techniques used in this study

5.8.1 Analysis of qualitative data

As outlined in Section 5.7, the qualitative data collected in this study were obtained in different ways, including: interviews, written comments made on questionnaires, student portfolio documents, student grade results documents, and field notes obtained from observations. Each of these were analysed in similar ways using the three stages of Ary et al.'s (2006) analysis of qualitative data: *familiarisation and organisation; coding and recoding; and summarising and interpreting*. Further details are discussed in relation to the findings in Chapter 7.

Familiarisation and organisation is concerned with storing the data in such a way that they can be easily retrieved. In all cases, the data collected in this study were organised systematically, although the techniques involved differed according to how the data were collected. For example, when interviews were audio-taped the data were transcribed and organised into a separate electronic document. This was then reformatted to make the text easier to read, and names

used in the document were later edited through the use of pseudonyms to ensure confidentiality. In the case of field notes, as these were fairly brief, these were maintained in hard copy format, photocopied for later analysis, and filed in a secure place. In the case of comments made on questionnaires, these were retyped and initially stored into the same spreadsheet file as the quantitative data. Finally, in the case of student portfolios, these were read through carefully and relevant pages were photocopied and stored securely. In all cases, the data stored were read and re-read in order to remain familiar with the increasing body of information that was stored.

Coding and recoding involves “the identification of categories and themes and their refinement” (Ary et al., 2006, p. 492). The first step in this process involves initial or preliminary coding. While initial coding used in this study differed slightly according to the nature of the data, the process used was similar. For example, in the case of face-to-face interviews (i.e., individual and groups), telephone interviews (i.e., qualitative comments), and questionnaires (i.e., qualitative comments), common patterns were identified by the use of numeric coding. This coding identified frequency (similarities & differences) in the data within broad categories related to the questions asked, or in the case of field notes, actual comments made. Due to the interactive nature of the interviews, responses to questions often veered into other areas therefore further refinement of response categories was required. A further level of re-categorisation was needed for the focus groups, as each group had different dynamics and the dialogue often moved in different directions. This preliminary coding enabled what Lincoln and Guba (1985) refer to as “a reasonable reconstruction of the data” (p. 347). Following the preliminary coding, re-categorisation occurred through merging some categories together. This then led to reviewing all categories across groups (e.g., of different interviewees) resulting in further re-categorisation, and in the case of focus groups yet another level of categories. In both the individual and group interviews, a final review was done to identify and minimize overlapping and duplicate responses.

In the *summarising and interpreting* stage categories identified are reviewed again to establish patterns in the data around key themes (i.e., summarising). In this study, final themes were organised in ways that were of

relevance to the research question. Interpretation of the data involves “going beyond the descriptive data to extract meaning and insights from the data” (Ary et al., 2006, p. 499). Such meanings and insights were gained through reflecting on both the words used and, in the case of interviews and observations, the non-verbal clues taken from the field notes. An important aspect of this was to identify those statements that would provide expression to the underlying themes. It is acknowledged that in some cases quotes taken from field notes may not have captured the precise words used. However, the essence of what was said has been captured as far as possible. The approach of summarising and interpreting data in this way is a feature of the *constant comparative method* used in interpretive inquiries (Maykut & Morehouse, 1994).

5.8.2 Analysis of quantitative data

In relation to statistical analysis of numeric data contained in questionnaires, it is recognised that traditional quantitative approaches attempt to “discover relationships among phenomena with a view ultimately of predicting and, in some situations, controlling their occurrence” (Cohen et al., 2000, p. 126). While interpretive inquiries are not concerned with predicting and controlling occurrences, they can have an interest in identifying relationships between variables. There are numerous statistical techniques available that can provide numerical representations of these relationships, such as correlation ratios, Phi coefficient, and Biserial approaches to item analysis. Such statistical analyses are generally applied to reasonable sample sizes that are representative of the population in question.

The populations of the stakeholder groups presented with questionnaires in this study are all relatively small and most standard statistical techniques applied to data collected will either be inappropriate, invalid or both. Importantly, the primary purpose of the questionnaires was to identify particular stakeholder views either to determine whether subsequent in-depth interviews were needed or to assist with determination of the semi-structured interview questions. All questionnaires used in this study adopted a five point Likert scale against set statements. In analysing the numeric data, relevant, standard statistical tools were used on Microsoft Excel™. It is recognised that while the data are ordinal an

assumption cannot be made that the data intervals are equidistant. However, for the purpose of providing a descriptive overview, estimated means and standard deviations were used to show the findings. In addition, the spread of responses is provided for each statement, rounded to the nearest one percent.

Finally, students' summative grades were analysed at the end of each semester using standard statistical tools on Microsoft Excel™. In semester one, this involved a comparison of students' self assessed grades with the final grades awarded. In semester two, the analysis was extended to include a comparison of the results of the two semesters. Details of the validation grading process are provided in Chapter 6, with further details of the analysis of the summative grades outlined in Chapter 7.

5.9 Rigour and trustworthiness in interpretive inquiries

Based on relativist ontology and a subjectivist epistemology, interpretive research adopts a methodological approach that attempts to elicit individual constructions and shared meanings. This methodological approach is very different to the nature of conventional forms of inquiry, grounded in scientific, positivist traditions of objectivity and the need for separation between the inquirer and the person or people who are the subject of the inquiry. As a result, conventional forms of assuring quality and rigour in research have been considered to be inappropriate when applied to interpretive inquiries (Eriksson & Kovalainen, 2008; Guba & Lincoln, 1994; Lincoln & Guba, 1985; Merriam, 1988; Mishler, 1990). Lincoln and Guba (1985, p. 290) identify four questions that are expected to be addressed in conventional inquiries, which can be summarised as:

1. *Truth value*: How can one establish confidence in the 'truth' of the findings of a particular inquiry?;
2. *Applicability*: How can one establish the extent to which the findings of the inquiry have applicability in other contexts?;
3. *Consistency*: How can one determine whether the findings would be repeated if the inquiry were replicated (with the same subjects and context)?; and

4. *Neutrality*: How can one establish that the biases, motivations, interests or perspectives of the inquirer have not distorted the findings?

Conventional ways of addressing these questions are based on four positivist-based criteria: *internal validity*; *external validity*, *reliability*, and *objectivity* (Ary et al., 2006; Guba & Lincoln, 1994). Internal validity has been defined as “the extent to which variations in an outcome (dependent) variable can be attributed to controlled variation in an independent variable” (Lincoln & Guba, 1985, p. 290). Put another way, it refers to “the extent to which conclusions drawn in research give an accurate description or explanation of what happened” (Eriksson & Kovalainen, 2008, p. 292). External validity is concerned with establishing the extent to which the findings can be generalised to other populations or settings (Cohen et al., 2000). Importantly, external validity can only occur if internal validity issues are met first. For example, findings cannot be generalisable if there is a “failure to describe independent variables explicitly ... [or there are] inadequate operationalising of dependent variables” (Cohen et al., 2000). Reliability is concerned with the “consistency of behaviour or the extent to which data and findings would be similar if the study were replicated” (Ary et al., 2006). The fourth and final criterion is objectivity. This is concerned with “the extent to which the research is free from bias in the procedures and the interpretation of results” (Ary et al., 2006, p. 511).

For interpretive inquiries Lincoln and Guba (1985) and Guba and Lincoln (1994) have developed a similar comprehensive set of criteria, tailored to the nature of interpretive inquiries, which have become widely accepted as providing the required rigour and trustworthiness (Ary et al., 2006; Eriksson & Kovalainen, 2008). Lincoln and Guba (1985) suggest we replace the four criteria in positivist inquiries, saying that *credibility* replace *internal validity*, *dependability* replace *reliability*, *confirmability* replace *objectivity*, and *transferability* replace *external validity*. Each of these interpretive research criteria is now discussed. How rigour and trustworthiness have been applied in this study is then outlined in Section 5.9.5.

5.9.1 Credibility

Credibility in interpretive inquiries “concerns the truthfulness of the inquiry’s findings ... [and] involves how well the researcher has established confidence in the findings based on the research design, participants, and context” (Ary et al., 2006, p. 504). Lincoln and Guba (1985) identify a number of possible techniques that will “make it more likely that credible findings and interpretations will be produced” (p. 301). These include: prolonged engagement, persistent observation, triangulation, peer debriefing, negative case analysis, and member checks. A further technique added to this list by Guba and Lincoln (1994) is progressive subjectivity. Each of these techniques is now briefly outlined.

Prolonged engagement involves the researcher engaging with the participants and the cultural setting in order to build sufficient trust and rapport with participants, and gain sufficient understanding of contextual factors and influences, in order to avoid misconstruing meaning and eliciting misinformation (Lincoln & Guba, 1985). Persistent observation involves focusing in depth on “those characteristics and elements in the situation being pursued” (p. 304). The intention being that the inquirer gets a clear understanding of what is important and at the heart of the situation being investigated.

Triangulation involves different dimensions and can include using one or more of “multiple sources of data, multiple observers, and/or multiple methods” (Ary et al., 2006). A further dimension is the use of multiple theories (Cohen et al., 2000; Denzin & Lincoln, 2000). Having multiple sources of data is the most common dimension associated with triangulation, the purpose being to “increase the likelihood that the phenomenon under study is being understood from various points of view” (Ary et al., 2006, p. 505). Such multiple sources may include interviews, observations and documentation. The use of multiple observers or investigators is a way of minimising individual bias (Patton, 1990). However, Lincoln and Guba (1985) consider that while this form of triangulation can be useful it can also be problematic in interpretive inquiries, particularly where the nature of the interactive dialogue between a researcher and the respondent (e.g., in an interview) produces data that are unique to the situation and that realistically cannot be replicated. An alternative approach is where there are multiple

investigators working as a team: “The fact that any one team member is kept more or less ‘honest’ by other team members adds to the probability that findings will be found to be credible” (p. 307). Multiple methods involve using different ways of approaching the collection of data, typically including both quantitative and qualitative approaches. For example: experimental research, survey research, ethnography, document analysis, action research, and case studies. According to Flick (1998), a multi-method approach adds “rigor, breadth, complexity, richness, and depth to any study” (p. 231). The last dimension of triangulation involves multiple theories. The idea of multiple theories in conventional, quantitative inquiries is that competing theories can be tested in order to provide greater confidence in the data analysis (Smith, 1975). While multiple theories are valuable in interpretive inquiries for informing the nature of the topic under investigation and providing a broader framework for analysing the data, Lincoln and Guba suggest some caution is needed if using these to triangulate the data:

If a given fact is “confirmable” within two theories, that finding may be more a function of the similarity of the theories than of the empirical meaningfulness of the fact ... the fact is no more believable because it has meaning within both these theories than if had meaning in only one of them. (p. 307)

While triangulation is considered to be a valuable way to strengthen the findings for a study, Patton (1990) argues that pragmatic and reasonableness issues need to be factored in, such as time limitations, political constraints and budgets. As a result this restricts the extent of triangulation techniques used in any given inquiry. Arguably, such reasonableness equally applies to other aspects of credibility as well.

Another way of ensuring credibility in interpretive inquiries is by the use of peer debriefing. This involves “exposing oneself to a disinterested peer in a manner paralleling an analytic session and for the purpose of exploring aspects of the inquiry that might otherwise remain implicit within the inquirer’s mind” (Lincoln & Guba, 1985, p. 308). A further aspect of credibility is negative case analysis. This involves continually refining hypotheses until it “accounts for all known cases without exception” (p. 309). Lincoln and Guba note that in reality achieving zero exceptions is unrealistic. Patton (1990) notes that in interpretive inquiries the intent of negative case analysis is for the researcher to be open to other possibilities “other than those finally recommended as most reasonable” (p.

463). Member checks also serve to enhance credibility. This involves inviting participants to comment on data, analysis, interpretations, and conclusions. This occurs formally and informally on a regular basis throughout the duration of the study, giving the inquirer the opportunity to check that their own constructions match that of participants' constructions. The final aspect of credibility is progressive subjectivity. This is primarily focused on monitoring the researcher's bias and is concerned with the extent to which the researcher's own views imposed on the reality have been acknowledged in the report (Guba & Lincoln, 1994).

5.9.2 Transferability

In interpretive inquiries transferability equates in broad terms to external validity and the notion of generalisability. An important difference is that in positivist inquiries context is irrelevant and emphasis is usually placed on random sampling to produce objective, generalisable findings for the whole population. In contrast, in interpretive inquiries the context is all important and any sampling is related to the purpose of the study, and is not necessarily representative of the larger population. In interpretive inquiries the ability to transfer (or generalise) meaning from the researcher's study to that of the reader is limited, therefore emphasis shifts to the reader's interpretation. In other words, it is up to the reader to determine whether the findings are transferable to their own context and setting (Lincoln & Guba, 1985). Transferability can be enhanced by the researcher through the use of *thick description* (Geertz, 1973). This refers to presenting detailed, descriptive data "in such a way that others reading the results can understand and draw their own interpretations" (Patton, 1990, p. 375). This is also referred to by Ary et al. (2006) as ensuring *descriptive adequacy*. For interpretive inquiries in cooperative education, Coll et al. (2009) and Eames (2003) suggest that context will also be a key feature of the detailed description. Geertz considers that culture is an important feature when describing the context of an inquiry. However, because of the inherent complexities in any cultural setting he warns of the potential danger in providing exhaustive amounts of information. Instead he suggests that the inquirer should present the more significant aspects that are of direct relevance to the inquiry by: "guessing at meanings, assessing the guesses, and drawing on explanatory conclusions from

the better guesses, not discovering the continent of meaning and mapping out its borderless landscape” (p. 20).

5.9.3 Dependability

In positivist inquiries dependability is replaced by reliability, the latter having a similar meaning when applied to assessment practices, as outlined in Chapter 3. It is concerned with the consistency of behaviour or the extent to which the findings would be replicated if the study were repeated (Ary et al., 2006). However in interpretive inquiries, it is expected that contextual influences will change the conditions affecting the inquiry and therefore would assume variances in findings would naturally occur if the study was replicated. For this reason, reliability in interpretive inquiries is viewed as being inappropriate (Guba & Lincoln, 1994; Patton, 1990), and is replaced by the notion of dependability. Dependability is concerned with establishing the trustworthiness of the research by ensuring that the “process of the research has been logical, traceable and documented” (Patton, 1990, p. 294), which Lincoln and Guba (1989) equate to a form of audit trail. Merriam (1988) proposes three ways to enhance dependability:

- The researcher should fully describe the assumptions and theory behind the study, their own position with respect to the group being studied, the basis for selecting participants and a description of them, and the social context from which the data were collected;
- Use of triangulation, particularly multiple methods of data collection and analysis; and
- Establish an audit trail (Lincoln & Guba, 1985) that describes how data were collected, how categories were derived, and how decisions were made throughout the study.

5.9.4 Confirmability

Confirmability “is about linking findings and interpretations to the data in ways that can be easily understood by others” (Patton, 1990, p. 294). This is viewed as being similar to establishing objectivity in a quantitative inquiry (Ary et al., 2006; Guba & Lincoln, 1994). A key feature of confirmability is that the

research findings are presented in a way that gives confidence to the reader that the data and interpretations are reasonable and confirmable from the information provided. Ary et al. suggest that confirmability is inextricably linked to the adequacy of the study's credibility and dependability, in particular that the research incorporates: a suitable audit trail, triangulation, peer review (i.e., peer debriefing), and reflexivity (self-reflections of the researcher).

5.9.5 Trustworthy techniques applied in this study

Trustworthiness in this study has been enhanced through a number of measures. Credibility, through prolonged engagement and persistent engagement, is evident from the 18 month period of stakeholder engagement. This includes the critical reflections and interactive dialogue with Alice during the six month development of the assessment model, and the on-going dialogue with multiple stakeholders over the 12 month intervention period. An outline of this engagement was provided in Section 5.7.

Triangulation has occurred in this study through various means. First, multiple sources of data have been used in order to consider the views of the assessment model implemented from multiple stakeholder perspectives. Sources of data used include questionnaires, interviews, observations and document analysis. Second, the use of multiple observers is evident from the collaborative nature of this inquiry, in which Alice and I worked as a team engaging in constant dialogue throughout the 18 month period of the study. Finally, a multi-methods approach has been employed in this study. Action research was employed to recognise the interactive nature of the inquiry between Alice and I through the intervention in a real practice setting. This enabled cogeneration of knowledge through active collaboration, which served to determine whether the portfolio model solved the problems identified within the contextual setting. A community of practice approach provided the impetus for the model's development through on-going critical reflection and dialogue. Furthermore, it served to support the nature of the study, being viewed as a shared inquiry with "learning centred around issues, dilemmas, and ambiguity that emerge from actual situations in authentic practice settings" (Buysse et al., 2003, p. 267). The third method, case study, has enabled the contextual complexities influencing the assessment

practices, to be described and discussed sufficiently to provide richer meaning for the reader.

Aspects of peer debriefing were also used in this inquiry. Work colleagues, who had experience of research and who had no involvement in the inquiry, were approached from time-to-time in this study in order to gain feedback on certain issues, approaches or dilemmas that emerged. Negative case analysis was evident through the large number of iterations that the assessment model went through in the six months leading up to its implementation (outlined in Section 5.7). Member checks were undertaken by enabling participants to validate their transcripts and data and submit any corrections they wished. In addition, the opportunity for participants to consider how I had interpreted their views was provided through exposure of the findings to both Alice and the business degree programme committee (which included several academic supervisor participants).

Transferability has been enhanced by the adoption of *thick description* (Geertz, 1973), achieved by the provision of detailed, descriptive data throughout this thesis report. Dependability has been enhanced by providing a clear description of: theories of learning informing this study, the position of the researcher, and the details of the participants and their involvement in the study (Merriam 1988). In addition, to further enhance dependability and also to demonstrate attention to confirmability, details have been provided of: the triangulation approaches adopted, the relevant contextual information informing the data collection, and every attempt has been made to provide sufficient descriptive information to provide a clear audit trail (Lincoln & Guba, 1985), enabling readers to evaluate conclusions for themselves (Moss, 1994).

Finally, the issue of power in interviews is raised by Cohen et al. (2000) who argue that this can produce interviewer bias by influencing the responses obtained. In relation to this study, first it is recognised that student interviews could be said to be the most vulnerable to such power. To minimise potential bias, only those students who had completed both their internship and their business degree (i.e., had received their final results) were selected for interview. With regard to interviews with academics, I believe the issue of power was not an issue. None of the academics had an employee reporting relationship to the

researcher, and it has also been my experience that academics are usually quite forthright in expressing their views (as was the case here, as shown in Chapter 7). Finally, the researcher did not know any of the workplace hosts interviewed beforehand, and there would be little reason for them not to give honest responses to the questions put to them.

5.10 Ethical considerations

Any research study involving human beings must consider the ethical and moral issues involved. Such issues can be complex and subtle, and place the researcher in a moral predicament that must balance the search for truth against participants' rights and values (Cohen et al., 2000). Such predicaments are particularly prevalent when conducting interviews in which "the personal interaction in the interview affects the interviewee" (Kvale, 1988, p. 109). Such effects, noted by Patton (1990), include exposing the interviewee's "thoughts, feelings, knowledge, and experience" (p. 353). Such exposure can potentially create harm to participants. Patton (1990, pp. 356-357) suggests that one approach to minimising potential harm, and also protecting the rights and values of participants, is for researchers to consider and address seven potential ethical issues when designing interpretive inquiries. Each of these is briefly summarised below, together with how this was considered and addressed in this study:

- *Promises and reciprocity*: what is in it for the interviewee? Why should they participate? What promises have been made?

In this inquiry, participants were selected in accordance with the processes outlined in Section 5.7. Participants were advised verbally and in writing that they could withdraw from the interview at any stage.

- *Risk assessment*: In what ways, if any, will interviews put participants at risk? Such issues may include: psychological stress, legal liabilities, ostracism by peers or others, and political repercussions.

The nature of this inquiry is such that the potential risk to participants was considered to be minimal. The only perceived danger that may possibly be in the minds of some student participants is that their

participation may in some way impact on their academic progress. To ensure such thoughts were not prevalent, only students who had completed the business internship and had already received their final grades were interviewed.

- *Confidentiality:* What reasonable promises of confidentiality can be honoured?

Participants were given an assurance that all comments and views expressed would be treated confidentially and will not be disclosed to any third party. Assurance was also given that any information used for the purposes of research findings would provide anonymity through the use of code numbers and/or pseudonyms. All data gathered from the participants, including taped interviews and transcripts were kept in a secure place.

- *Informed consent:* What information needs to be given and consented to in order to ensure mutual protection?

Relevant information about the nature of the research and the purpose of the interview was fully disclosed to participants, and all interviewees signed consent forms agreeing to participate.

- *Data access and ownership:* Who will have access to the data and for what purpose? Who owns the data?

The data are owned by the researcher. However, participants were given right of access to any information and data gathered from them at any time of the study. This was made explicit in the information provided to interviewees.

- *Interviewer mental health:* Will interviewers hear or see anything when conducting the interview that may merit debriefing and processing?

The nature of this inquiry was such that the mental health of the interviewer was not considered to be at risk. Essentially, the researcher was only interested in students' learning experiences and views on assessment. Given the high level of satisfaction with their

internship experiences and the assessment process, recorded by students in the questionnaire responses, there was nothing to suggest that anything might be said or shown by students during their interview that potentially may be disturbing to the researcher. The researcher knew all the academics interviewed and there was no reason to suggest that anything might be said or seen during the interviews that would disturb the researcher.

- *Advice:* Who will be the researcher's confidant and counsellor on matters of ethics during the study?

In this study, the researcher's confidant was the chief supervisor. All interviewees were also informed that should they have any concerns about their participation in this research they should contact the researcher's chief supervisor. Relevant contact details were provided.

Finally, permission for this study was gained from the Human Research Ethics Committee in the Centre for Science and Technology Education Research (CSTER) at the University of Waikato. Following the granting of this permission, no further permission was required from my own educational institution.

5.11 Chapter summary

This chapter discussed the different paradigmatic influences on ontological, epistemological and methodological approaches to inquiries, noting that how the research question is investigated is determined by the epistemological position taken by the researcher. This thesis takes an interpretivist epistemological perspective and methodological approach to the inquiry. This is consistent with the theories of learning discussed in Chapter 4, and recognises the subjective nature of assessment and the benefit of adopting a dialogic process, involving the stakeholders involved, to arrive at the 'truth' of learning.

The interpretive approach used in this inquiry includes three interconnected and complementary components: *Action research, communities of*

practice, and *case study research*. A mixed-methods approach to the data collection was employed that draws upon qualitative and quantitative data collection techniques. The techniques employed in this study include questionnaires, interviews, observations, and document analysis. The research design adopted for this study was presented, including its four phases of data collection over an 18 month period, involving all key stakeholders. The findings from phase one are discussed in Chapter 6, with phases two to four discussed in Chapter 7. To ensure trustworthiness, four criteria for interpretive inquiries, developed by Lincoln and Guba (1985), have been used in this study. These include attention to *credibility*, *dependability*, *confirmability*, and *transferability*. Finally, attention was given to how ethical considerations were addressed in this study through Patton's (1990) set of potential ethical issues when designing qualitative (interpretive) inquiries.

The next chapter describes phase one of the data collection. This involves how a new assessment model was developed through an intervention in a business internship.

Chapter 6

The development of a new assessment model

6.1 Chapter outline

This chapter describes the analysis undertaken in the development of a new assessment model and its introduction in a business internship. Section 6.2 provides a background to the intervention, including its planning and the contextual details affecting the internship. Particular attention is given to unresolved stakeholder issues and concerns with the business internship's assessment methods. Analysis of these issues follows in Section 6.3 by drawing upon the literature discussed in Chapters 2, 3 and 4. The analysis informed the dialogue between Alice and I over a six month period leading up to the introduction of a new model of assessment. This was an iterative process involving reading, discussion and reflection. The analysis considers assessment issues in relation to the internship's aims and learning outcomes. Particular attention is given to the two distinct components of the internship: students' workplace performance; and the learning derived from students' placement experiences. The inter-connections between these two components are reviewed, and the implications for assessment are discussed. Attention is also given to how assessment contributes to the course's aim of preparing students for professional practice. The analysis serves to inform the development of a more integrated portfolio-based assessment model, which is discussed in Section 6.4. Finally, in Section 6.5 attention is given to the preparation for the portfolio assessment's introduction, including gaining relevant support and approval, and an outline of the relevant preparatory processes and materials developed.

6.2 Intervention background and presenting problem

This section outlines relevant details of the intervention planning and the context in which it occurs. An outline of the pre-intervention assessment methods employed in the business internship is provided. This is followed by a description

of unresolved issues and concerns with these methods identified by the internship's stakeholders, which present the basis for this intervention.

6.2.1 Planning the intervention

As discussed in Chapter 5, Alice is the business internship coordinator. When asked about a possible intervention in the current assessment methods in the business internship Alice was enthusiastic in her agreement, keen to explore new ideas and approaches. In particular, she was very keen to find ways of addressing the numerous assessment issues she felt remained unresolved. Alice made it known to me from the start that she uses *critical reflection* as an important tool in her approach to professional development, being a keen user and advocate of 'learning journals'. We agreed to use dialogue and reflection, through our own journals, as a way of working through the assessment issues. I found these to be extremely useful in documenting issues from our weekly meetings, and subsequently reflecting on these in order to guide further readings and subsequent conversations. In effect, this learning journal served to be a valuable source of field notes in the model's development.

Weekly meetings were arranged over a period of approximately four months, the end of which being our target for completion of the new assessment model. The intention was to be in a position to present the new model to the business degree programme committee² for approval in sufficient time to allow for any required amendments, subsequent preparation of class materials for students, changes to pre-placement workshops, and relevant briefings for the academic supervisors and workplace hosts involved.

We considered that a useful starting point would be for Alice to brief me on recent developments in the business internship and how it was currently assessed. I had some knowledge of the internship from my previous involvement with it a few years ago (as outlined in Chapter 1), so was reasonably familiar with its purpose and practices. In addition, Alice agreed to provide me with an outline of stakeholder issues and concerns with the assessment methods that she had been

² Any assessment changes in the business degree must be approved by this committee prior to introduction

unable to resolve. At the same time I would write up a brief summary of relevant key points from my review of the literature on assessment and how these might inform cooperative education and internship assessment practices in general, and the business internship stakeholder concerns identified by Alice in particular. Alice wished to contribute to this, and agreed that, if necessary, she was happy to source relevant articles, particularly in areas of direct interest to her own research, such as reflection and mentoring. I also agreed to outline relevant theoretical and epistemological principles that might assist with the analysis of stakeholder concerns, as well as with the development of a new assessment process or model.

The key components of the assessment literature in relation to cooperative education and internship programmes were outlined in Chapters 2 and 3. In addition, relevant theories of learning affecting cooperative education, and the implications of these for the assessment of the business internship, were outlined in Chapter 4. Aspects of these chapters, together with reference to a few additional research articles and studies, are discussed briefly in relation to the analysis of the current assessment model, as well as informing the subsequent development of the new assessment model. However, it is not the intention to repeat all the readings from these chapters that informed the analysis of the current assessment issues and the model's development; rather the emphasis is on providing explanations for the specific changes made to aspects of the business internship assessment process, leading up to development and introduction of a new model of assessment.

6.2.2 The business internship: Background

The business internship is a compulsory course in the business degree for students who have minimal or no prior relevant work experience. Most work-experienced students seek and gain exemption from the business internship. Typically, 15-20% of business degree students are work-experienced. Many of the students undertaking the internship do not have English as their first (native) language, with most born in China. About half of the students who enrol in the business degree are non-resident, full fee-paying, international students. However, many of these seek and attain New Zealand residency prior to or immediately following graduation. Approximately, 25 - 50 students enrol in the

business internship each semester. The internship requires students to undertake a work placement of approximately 140 hours duration, typically structured as two days per week for 10 weeks.

Students are encouraged to source their own work placements and are given assistance to achieve this. Relevant workshops are held several months prior to the commencement of the placements in order to help students source and secure relevant work. The Takahe Polytechnic Business School also keeps an up-to-date database of business organisations looking for students, and this is used to help link workplace hosts with relevant students. The database is sometimes also used to place students who are struggling to find their own placement. While a few organisations will take a student each semester, the majority of organisations tend to offer ‘one-off’ placements. Organisations taking students for a placement broadly reflect the nature of the business and industry sectors operating in the city, including: commercial and not-for-profit enterprises; and manufacture, wholesale and retail sectors. Most workplaces tend to be small or medium enterprises (SMEs). Typically, workplaces will host a single student placement at any one time, so as many as 50 workplace hosts may be involved in a semester.

All work placements must be pre-approved by a senior academic staff member from the related study major of the student. Relevant checks are done to ensure the workplace is suitable for a student placement. For example, the organisation must have its own premises, and not be run from ‘home’, and it must be a bone-fide organisation that employs staff. Placements in organisations with fewer than three staff are discouraged, unless a student’s career intention is to set up or work in a small business. In addition, the work that students are expected to undertake must be presented in the form of specific work objectives. These objectives must be of relevance to the student’s study major and at a level that is considered reasonable and achievable for a final year student. The approval process is usually an iterative one, involving some negotiation over work objectives between the senior academic staff member, the student and the workplace host. Once the work objectives are agreed, a learning contract (referred to as a ‘learning agreement’) is signed by each of the three parties. This agreement specifies details of the work objectives to be completed and over what time period. It also specifies the responsibilities of each of the three parties (see

Appendix F). One of the parties is the academic supervisor who will be assigned to the student throughout the placement period. The signing is expected to occur on the workplace premises. This affords the opportunity for the academic supervisor to confirm that the workplace meets minimum requirements for a suitable placement, and to ensure that workplace host is familiar with what is involved in the business internship, including details of the assessment process and their involvement in it (which is described later in this section). Furthermore, while not a requirement of the placement, workplace hosts are encouraged to provide mentoring support to students as well. Very occasionally, the workplace host who agrees to take the student on placement, and who subsequently liaises with the academic supervisor, may not end up being the same person in the organisation who provides supervision and mentoring support. However, for the purpose of this thesis, an assumption is made that the two roles are undertaken by the same person. Thus the terms workplace host and workplace supervisor will be used interchangeably.

While workplace hosts are encouraged to pay students for the work they undertake on placement, this is not a requirement. The Takahe Polytechnic Business School considers such a requirement impractical, as this would make it difficult for many students to secure a placement. This is partly because of the relatively short period of time that students spend in the workplace, and partly because of the large number of students seeking placements who are new to New Zealand, who typically have no prior work experience, are unfamiliar with New Zealand business culture, and do not have English as their first language. As a minimum requirement, the School asks workplace hosts to cover students' 'out of pocket' expenses, such as transport and consumables.

The aim of the business internship is to help prepare students for employment in business by undertaking a work placement/project of relevance to their major. Current policy at the Takahe Polytechnic requires all courses, including the business internship, to specify required learning outcomes and that these be summatively assessed. There are four learning outcomes for the business internship:

- Complete successfully an approved project or placement in the workplace;

- Communicate and relate effectively in the workplace;
- Evaluate and critically reflect upon the project/work processes and outcomes within the context of the workplace environment; and
- Identify, implement, and evaluate a personal development plan.

The first two learning outcomes focus on workplace performance, with the two remaining learning outcomes focusing on the learning derived from the student's placement experiences. The aims and learning requirements of the business internship make it quite different to other business degree courses as it involves students being off-campus undertaking work that is unique to them and the particular context of their placement. This contrasts with the delivery of other courses in the business degree that occur in a structured, classroom-based setting where the curricula, and the required level of understanding of the curricula, are essentially the same for all students. The other key difference with the business internship is that it has an emphasis on developing students' broader skills and competencies within a particular work practice, and as a result has more of a personal and professional development focus. In contrast, classroom-delivered courses tend to emphasise theoretical concepts and models within a framework of a specialist 'body of knowledge', thus focusing more on technical knowledge and cognitive development.

Before commencing their placement, each student is allocated an academic supervisor, whose primary role is to monitor student progress and provide mentoring support during the placement period. Academic supervisors are expected to have regular meetings with the students throughout the placement period. An important aspect of the support is the feedback given on students' weekly learning journals, which capture students' reflections on their experiences. In addition, academic supervisors provide advice to students on their work as needed, and are also expected to monitor students' progress on the learning goals (discussed in the next section). As well as meeting the workplace host at the beginning of the placement to sign the learning agreement, the academic supervisor will also participate in the collaborative assessment of the student's performance at the workplace at the end of the placement (which is discussed in the next section).

The allocation of supervisors is made by a senior manager in the school, who has responsibility for negotiating/allocating all staff teaching responsibilities. In the main, supervisor allocations are made by matching the discipline expertise of the academic with the nature of the work to be undertaken by the student. Different academics may be involved in supervision each semester. This is because allocation of academic staff to other course classes is undertaken first, with business internship supervisions allocated according to lecturers' availability/other workload commitments. During a semester placement period as many as 20 academics can be involved in one-to-one academic supervision of students. Alice is the academic course coordinator, who has overall responsibility for the course. This includes assisting students to secure relevant work placements, providing pre-placement preparatory workshops for students, co-ordinating academic supervision (including briefing new supervisors), and managing the assessment process. Alice, who has been in the role for a little less than five years, is assisted by an administrator.

6.2.3 The business internship: Pre-intervention assessment methods

The pre-intervention assessment practice in the business internship had three components, each having a different percentage weighting attached to it. The three components included *personal learning goals* (worth 10%), *collaborative assessment of work performance* (worth 55%), and *a reflective essay* (worth 35%). While there was some connection between the personal learning goals and the reflective essay, involving students reflecting on the achievement of their goals at the end of the placement, the three components were largely independent of each other. The overall mark for the internship was determined by the numerical aggregation of the marks achieved for each individual component. This mark was then converted to a grade, using an 11-point grading system (A+ to E) common to all business degree courses. The three components of the business internship assessment are described below.

Prior to the commencement of their work placement, students were required to identify a minimum of two *personal learning goals* that they intended to set themselves for the placement period. Each goal was required to be described using the SMART framework - originally developed by Drucker (1954)

in his pioneering work on management by objectives - that is, each goal must be specific, measurable, achievable, realistic, and timely. Students must explain why they chose each goal, how they intend to measure achievement of it, and the strategies they intended to take to ensure achievement (see Appendix G).

The second assessment component, *collaborative assessment of work performance*, was carried out at the end of the of the students' work placement. This involved each of the three parties - the workplace host, the student and the academic supervisor – independently completing an assessment form. The form consisted of five components, with each component allocated a weighting according to the relative importance placed on it. The first four components covered different categories of competencies – professional (10%), interpersonal (20%), intellectual (10%), and project/time management (20%) – with the fifth component covering the effectiveness of the placement (40%). A guide was provided to assist each assessor with completion of the form (the form and guide are provided in Appendix H). This guide provided criteria in the form of outcome statements (or performance standards) for each component. The outcome statements attempted to describe, and differentiate between, the levels of performance achieved (i.e., standards). There were five performance levels: outstanding; very good; satisfactory; intermittent; and unsatisfactory. Each of these performance levels were allocated a range of available marks with outstanding a nine or a 10, and unsatisfactory a zero or one. The completed form was brought to the meeting by each party and then used as part of a round-table dialogue. The intention of the meeting was to come to a consensus on the student's performance for each of the five performance components. This was then used to determine the overall mark for the student's placement performance.

The final part of the assessment required students to complete a *reflective essay* (see Appendix I). This required students to evaluate (i.e., critically reflect upon) three or four learning experiences from their placement. To assist with this, students were expected to keep a weekly learning journal in order to capture the key experiences they encountered whilst on placement. Their learning from these experiences was expected to inform their overall learning experiences for their reflective essay. In order to demonstrate on-going reflection, students were expected to include their learning journals when submitting their essays to their

academic supervisor at the end of the placement. The essay also required students to include an evaluation of their personal learning goals, based on the measures of achievement they originally set themselves.

6.2.4 Issues and concerns with the pre-intervention assessment methods

Assessment practices in the business internship have evolved over time, periodically adjusted following consideration of relevant research, assessment practices in courses of this nature elsewhere, and business internship stakeholder feedback. Despite this on-going commitment to improvement, Alice identified a number of issues raised by the business internship stakeholders, including herself, which she has been unable to resolve, and these are outlined here. It should be noted that the unresolved assessment issues presented in this section are drawn from the anecdotal data provided by Alice, and do not form part of the researched data collected in this study. However, the anecdotal data does provide important contextual, background information that informed our dialogue and interactions with the literature during the pre-intervention period, and which led to the development of a new model of assessment.

6.2.4.1 Collaborative assessment of work performance

Students, academic supervisors and workplace hosts all have expressed concern with the collaborative assessment of work performance at some stage over the past few semesters. Many students expressed concern with the fairness of the marking process, given the ‘luck of the draw’ of where they did their placement and what work they were required to undertake. They argued that this can result in some students getting relatively easier work responsibilities and tasks compared to others, making it easier to complete the work and therefore potentially gain a higher mark and, because of the weighting attached to it (55%), a higher overall grade. A number of academics shared these concerns, although many had also highlighted the developmental value for students, particularly the dialogue that occurred around student competencies at the three-way meeting.

Alice reported that the development value of the feedback was something some students had commented on positively in prior evaluative feedback.

However, Alice felt that she got an equivalent amount of feedback from other students indicating that some academic supervisors and workplace hosts focused most of their time in the meeting on allocating final marks, rather than giving useful feedback. Feedback, when given, was not very specific and tended to be general in nature, for example, ‘was always on time’, ‘worked well with staff’, and ‘did a good project’. In addition, workplace hosts tended to focus on the positives, rather than give critically constructive comments that might aid future learning and development. Alice also noted that while most students were comfortable with the process, a few had reported it to be challenging, particularly having to self-assess their performance and then having to discuss this at a face-to-face meeting with the workplace host and academic. Alice was not surprised by this, given that students do not experience this form of assessment elsewhere in their business degree.

Some students had also expressed the view that academics should be more of a ‘silent partner’ in the collaborative assessment meeting. Their contention was that, unlike workplace hosts, academics were not in a position to judge how well they had performed in the workplace. Many placements did not have tangible ‘deliverables’ in which the outcome of the student work was able to be viewed from the outside. For example, students may be part of a team in which their individual contribution was difficult to isolate, or they may have undertaken a number of unconnected task-related activities that were difficult to make judgements on, other than by the workplace hosts or other workplace staff who were present at the time the particular task was completed. In those cases where there were clear deliverables, for example, an investigative project resulting in a written report, students had argued that academics do not always appreciate the other influences on their work, such as the day-to-day work pressures, the level of responsiveness and helpfulness of other workplace staff, or any of the other complex variables that may impact on the quality of the work completed. In other words, for some students, the performance of the work being undertaken should not have been separated from the context in which it was completed.

In contrast to these student views, some academic supervisors had concerns with the involvement of workplace hosts in the grading process. These academics argued that there was often inconsistency in the way performance

judgements were made by workplace hosts. They pointed to workplace hosts' inexperience in assessment and the consequent variability in their understanding and expectations of student performance standards, particularly as many workplace hosts had limited or no experience in managing new graduates or internship students. In larger organisations, students interacted with many different staff members, making individual workplace supervisor judgements difficult, particularly in relation to professional and interpersonal competencies, unless the views of a number of workplace staff were sought (which is often impractical in a large and busy working environment). Academic supervisors, like students, also mentioned that many workplace hosts tended to focus their comments on the 'positives' of what students had done, often through broad, generalised statements on overall outcomes, rather than relating it to specific incidents or tasks completed. This is the case even when discussing students' more transferable or generic competencies, such as interpersonal skills, where comments like 'you fitted in well with the team' or 'we thought you communicated and interacted well with staff during the project' were not uncommon. They believed that this may be related to the fact that payment to students was not compulsory. Because of this, many academics believed workplace hosts sometimes tried to 'reward' students by promoting higher than deserved marks in the collaborative assessment process.

Some academics had suggested that less weighting should be allocated to the collaborative assessment process because of what they saw as the 'imprecise' nature of the process. There appeared to be two aspects to this. First, they argued that the assessment form used gives a misleading impression that a level of precision of what constitutes competent performance can be pre-determined, irrespective of the actual work carried out by the student. This was supported by the fixed allocation of weightings given to the five competency categories. Second, they argued that even if competency weightings could be changed to better reflect the work performed by the student, an incorrect assumption was made that performance of these competencies would be interpreted and applied fairly and consistently against the criteria by a range of different people, including students. They argued it was unrealistic to assume that evidence can be obtained to provide such a precise measurement of work performance in a professional business setting, particularly when considering the broad range of competencies

that may or may not be used. In effect these, academics had concerns with the *validity and reliability* of this component of the assessment process.

Generally, most workplace hosts seemed content to be involved in the collaborative assessment process, particularly the feedback they were able to give to the student to assist with their learning and professional development. However, some found it difficult allocating marks to student performance. Feedback from previous workplace hosts led Alice to believe that this was largely because most had little experience in assessing student performance and found it difficult to evaluate performance in such a precise way. In addition, some workplace hosts, particularly those taking business internship students for the first time, found it difficult to determine the level of performance or ‘standard’ they might expect from students, which made the allocation of marks for ‘effective placement’ competencies (worth 40%) difficult. Alice also got the impression that some workplace hosts were uncomfortable in giving marks knowing the consequences of this for students, which may well have led workplace hosts to advocate for higher than deserved marks in the collaborative meeting.

6.2.4.2 Reflective essay

Some students had questioned the weighting given to the reflective essay, contending that it was too high. They argued that the effort in ‘doing and completing’ the work should have been better recognised (or rewarded) in the assessment process. For some students, the reflective essay was an ‘afterthought’, something they had to do but were less motivated to do, a sort of ‘anti-climax’ to the satisfaction they gained from completing the work requirements of the placement.

Part of the criteria for the reflective essay required submission of weekly learning journals, requiring students to demonstrate that they had been reflecting on their workplace experiences on an on-going basis. While the marks allocated to this contributed only 5% of the marks available for their reflective essay, Alice acknowledged that there had been occasions when students had preferred not to write about all their experiences because they knew this would be read by others. For example, she was aware that some students would have liked to use their

journals to write about a range of feelings of a personal nature which may or may not have been related to their placement. A further issue we deliberated on related to how the journals were used, particularly the fact that information disclosed potentially may have been used to judge their performance. For example, in reflecting on their work experiences students may have exposed their weaknesses and any shortcomings in tackling work tasks or responsibilities. This information would have been read and discussed with their academic supervisor, who subsequently made judgements on their performance at the collaborative assessment meeting. In addition, the learning journals provided the source information for the reflective essays, which were marked by their supervisors. In effect, there was a potential, if not actual, conflict of interest both for students and academics. While Alice understood that students may have been reluctant to disclose these aspects of themselves, she felt that writing about these in a reflective manner was likely to have aided their personal and professional growth and development.

Academics had voiced concerns that the reflective essay only demonstrated a student's ability to articulate what they *may have learned*, rather than what they *had actually learned*. They argued that each student's work placement was unique; therefore there was no easy way of determining whether they had identified the important learning aspects of their experience.

A further issue with the reflective essays was in the marking. The essays were marked by the student's academic supervisor, which Alice believed led to inconsistency in the way these were marked. She had found it difficult to create criteria that were precise enough to be interpreted in a more consistent manner. As with any assessment, the interpretation of the criteria when applied to students' work relied on academic judgement. However, there were as many as 20 academic supervisors marking the essays in any one semester. Alice believed there was a broad range of understanding of what constitutes effective reflection, as this was not something that is taught or assessed in other business degree courses. While new supervisors were given some training, staff availability and workload pressures meant that the time given for the training was less than ideal (which was in fact much less time that the students were given). Alice felt that it was likely to take two or three semesters' experience for academics to get

sufficiently familiar with reflection to be able to distinguish students' work at the five levels of performance (see Appendix I). While moderation of a small sample of the marked scripts was undertaken, she felt this did not necessarily pick up all the variability in the marking. For example, in some essays she had moderated she has been able to pick up inconsistencies, discussed this with the particular academic and agreed on adjustments to the marks allocated. If the particular academic had marked more than one script, any moderation issues in the marking of one script meant that the academic's essays were likely to be remarked by the moderator. However, she was aware that a small sampling of marked scripts was less than ideal. While other experienced markers helped with the moderation, workload pressures prevented a more substantial moderation process being used.

6.2.4.3 Personal learning goals and the connections between assessment methods

Alice believed that the personal learning goals were valued by students, with feedback generally very positive. For many students, this was the first time they had been involved in setting and managing goals in this way, and Alice believed that many found it a useful tool particularly when used in a work setting. While Alice had been happy with the value of the personal learning goals to student learning, she recognised that there would be even more value if there was some connection with the collaborative assessment process. For example, the collaborative assessment process involved a review of student competencies connected to their workplace performance. In most cases their personal learning goals were related to one or more of these competencies. For example, time management and improving verbal communication skills were a particular favourite of many students. However, these competencies may not have been key contributing factors in meeting their work objectives. Therefore gaining feedback on these goals, both during the placement and at the collaborative meeting, may not have occurred.

In the pre-intervention assessment practices there were no connections between the collaborative assessment process and the reflective essay. The essay was often required to be handed in before or at the same time as the collaborative assessment meeting took place. Alice believed that students obtained valuable feedback from the meeting and that further value could be obtained if students

were asked to reflect on this feedback in a way that may help their future professional development. Timeframes for marking and results approval processes sometimes made it difficult to change the deadlines for completion of the reflective essay.

6.3 Problem analysis

6.3.1 Introduction

This section analyses the assessment issues and stakeholder concerns outlined in the previous section. Initial attention is given briefly to the required learning outcomes for the course, by considering how these outcomes were determined and how they are informed by the literature. Attention is then given to the assessment issues and stakeholder concerns through the ‘lens’ of the two key components of the required learning outcomes: students’ workplace performance; and the learning derived from students’ workplace experiences. The analysis involves a brief outline of the assessment methods associated with each component, followed by a summary of the issues and concerns relating to this component, which were outlined in the previous section. These issues are then discussed in relation to relevant aspects of the literature. Further analysis of these issues is then given through the ‘lens’ of the course aims, and how a more holistic approach to assessment might provide the basis for their resolution. Finally, this section concludes with a summary of the issues that informed the development of the new model of assessment outlined in Section 6.4.

It should be noted that the full details of the literature that informed this thesis were outlined in Chapters 2, 3 and 4. It is not the intention to repeat all of these here, rather this section draws on particular extracts of these chapters, together with a few further readings, in order to help explain how stakeholder issues were addressed, and how the literature also contributed to the development of the new assessment model (outlined in Section 6.4).

6.3.2 Learning outcomes

Given the inter-relationship between learning and assessment, initial attention is given to the relevance and appropriateness of the required learning outcomes and the implications for assessment in general. The course's four learning outcomes are restated below:

- Complete successfully an approved project or placement in the workplace (LO1);
- Communicate and relate effectively in the workplace (LO2);
- Evaluate and critically reflect upon the project / work processes and outcomes within the context of the workplace environment (LO3); and
- Identify, implement, and evaluate a personal development plan (LO4).

As mentioned earlier, over time, like other aspects of the course, there have been periodic reviews and occasional adjustments made to the expected learning outcomes, informed by reference to relevant articles and reports of 'good practices', both within New Zealand and internationally. In addition, the outcomes have been adjusted periodically in response to relevant feedback from the business internship stakeholders, mostly from students and the staff involved in their supervision.

As noted in Chapter 4, when discussing the situated nature of learning, learning outcomes need to be considered as broad intentions and directions for learning that allow for the informal and unanticipated learning that occurs in the workplace. In reviewing the business internship learning outcomes it appeared that they were sufficiently broad to enable this to occur. For example, they can accommodate intellectual and emotional experiences that Tyler (1950) identified as being necessary for changing student behaviour. Bloom (1954) referred to these two components as the cognitive domain (knowledge, mental skills) and the affective domain (attitudinal skills, emotional growth). If students are to bridge the gap between the world of academia and the world of work, they will need to employ a range of skills from both these domains (Atkins, 1995, 1999). Competency in these two domains also is considered as being important to business employers (Hodges & Burchell, 2003; Sweeney & Twomey, 1997). The first two learning outcomes focus on work performance and are intended to

demonstrate a student's ability to apply their knowledge and skills in a different situation and in an unfamiliar context, conditions considered appropriate to higher levels of learning (Biggs, 2003; Gardner, 1993; Wiske, 1998). In addition the second learning outcome (i.e., communicate and relate effectively in the workplace) embraces the importance attributed to *distal guidance*, outlined by Billett (1996), and *guided participation*, outlined by Rogoff (1995), contributing to students' informal learning (see Chapter 4). The remaining two outcomes focus on the learning derived from the placement through reflection and goal setting, both of which may contribute to students' metacognitive development (Biggs, 2003), and arguably allow for, what Wenger (1998) refers to as, the informal, *emergent* learning that occurs within a community of practice.

As was outlined in Section 6.2, the current assessment methods in the business internship tend to view these two sets of learning outcomes separately, with performance assessment largely removed from goal setting and reflection. However, in reality the two elements of performance and learning are interconnected and inter-dependent. The benefit of reflection on experience to learning and thinking is emphasised in the literature (Boud, Keogh, & Walker, 1985; Dewey, 1933, 1938; Kolb, 1984) and, according to Schön (1983, 1987), it plays an important part in the effective performance and development of professional practitioners. Goal setting has also been viewed as contributing to effective performance. A correlation between goal setting and superior task performance was identified by Edwin Locke in his seminal, longitudinal study carried out between 1969 and 1980 (Locke, Shaw, Saari & Latham, 1981). There is also a connection between all three elements of goal setting, reflection and performance. Reflection has been described as a form of mental processing of new stimuli or experiences, that is used generally in complex situations where there is no obvious meaning or solution, and that involves drawing on existing knowledge, understanding and emotions in order to fulfil a purpose or to achieve some anticipated outcome (Moon, 1999). Reflection, as practiced in the business internship course, involves students making sense of their work experiences and linking this to what they already know in order to create new meaning. Such meaning may inform immediate actions that contribute to the solution of a current work problem, or it may inform future actions or goal setting. Learning derived from reflecting on work-related goals or new work experiences may contribute to

student's *contextual knowing* (Baxter Magolda, 2001) and metacognitive development (Ertmer & Newby, 1996).

In considering this further, Alice and I took the view that the four learning outcomes were sufficiently broad in scope to provide the basis both for the performance requirements, of particular importance to workplace hosts, and the developmental learning aspects that students derive from their placement experiences. Writing learning outcomes in such a broad way is not uncommon and can provide the flexibility necessary to be interpreted in different contextual settings (Hussey & Smith, 2003), such as those experienced by students in cooperative education. Nevertheless, it was felt that when related assessment criteria were developed, it would be important to provide clarity of meaning. In the meantime, we agreed that some minor change to the wording of learning outcomes would be helpful. Currently, the second learning outcome reads as 'communicate and relate effectively in the workplace'. Alice was aware that the original intention of this learning outcome was to ensure that students did not just focus on required work tasks, but pro-actively engaged and participated in the broader, daily work life of the organisation in order to enrich their workplace experiences. We agreed to change this to 'participate effectively in the workplace'. The third learning outcome uses the words 'evaluate and critically reflect upon the project/work processes and outcomes within the context of the workplace environment'. First, 'evaluate and reflect' appeared to be tautological, in that the words had similar meaning given that reflection requires evaluation. Alice was aware of this, but had left it as stated as this served to reinforce to students the importance of taking an evaluative approach when reflecting on their learning experiences. Similarly, the words, 'within the context of the workplace environment', appeared to be unnecessary. Again, Alice was of the view that this served to remind students of the wider aspects of their workplace experiences when reflecting on their learning. We agreed to leave this learning outcome as stated.

Arguably, of more importance, was a recognition and agreement that a stronger connection was needed between the performative requirements (LO1, LO2) and the learning derived from placement experiences (LO3, LO4). A strong view was beginning to emerge that there may be improved benefits to student

learning if a more holistic approach to assessment was taken. As assessment is the mechanism for demonstrating achievement of the learning outcomes, in the following sections the pre-intervention assessment methods are viewed through the ‘lens’ of these two inter-related components – workplace performance and the learning derived from that performance - and the extent to which they can be articulated and understood at different levels of achievement. Attention is also given to the inter-relationships between the different pre-intervention assessment methods employed.

6.3.3 Workplace performance

6.3.3.1 Pre-intervention assessment method

The two learning outcomes related to workplace performance are:

- Complete successfully an approved project or placement in the workplace; and
- To communicate and relate (changed to ‘participate’) effectively in the workplace.

The assessment instrument used by Alice for assessing these two learning outcomes incorporates five competency categories (see Appendix H):

- Professional competencies (10%);
- Interpersonal competencies (20%);
- Intellectual competencies (10%);
- Project/time management competencies (20%); and
- Effective placement competencies (40%).

A set of performance criteria or outcome statements is provided for each competency category. The criteria are largely based on earlier research identifying a number of cognitive and behavioural competencies deemed important for graduate performance by business employers (Burchell, Hodges & Rainsbury, 2001; Hodges & Burchell, 2003; Sweeney & Twomey, 1997). Given most students complete their business internship in their final year of study, it was considered that these competencies provided a valuable framework for performance expectations of business internship students. The competencies take

the form of performance criteria listed under three different levels of achievement: outstanding; satisfactory; and unsatisfactory. Two additional levels of achievement, very good and intermittent, are also included. 'Very good' is described as containing some aspects of the outstanding criteria and some aspects of satisfactory criteria, while intermittent is described as containing some aspects of satisfactory criteria and some aspects of unsatisfactory criteria. Adjustments have been made to the competency criteria over time following evaluative feedback, largely from workplace hosts. The overall mark for performance is determined by combination of the actual marks allocated to each competency category – arrived at by multiplying the mark given to each category by the weighting attached to it and then multiplying this by 10.

6.3.3.2 Analysis of stakeholder concerns

Stakeholder comments and concerns with regard to work performance assessment, identified earlier, are summarised here. These will then be considered in relation to the principles of validity and reliability:

- Student and academic concerns with the fairness of performance assessment, given the 'luck of the draw' where students get placed and the imprecise nature of the process;
- Mixed views on the quality of the feedback provided by workplace hosts and academics at the collaborative assessment meeting;
- Inconsistency in the way competency judgements are made by workplace hosts;
- Appropriateness of academic involvement in the allocation of marks for student performance (given their 'arms-length' involvement);
- Not all workplace hosts comfortable being involved in marking students' work performance;
- Lack of clarity in performance expectations and standards, potentially resulting in inconsistent and unfair allocations of marks for 'effective placement' competencies; and
- Potential conflict when there is no employment relationship (and students not being paid) and workplace hosts' involvement in the marking process

In considering these stakeholder views as a whole, it is likely that the current performance assessment process would fail reasonable tests of validity and reliability outlined in Chapter 3. In relation to validity, while the business internship performance assessment instrument was based on and constructed from prior research of the important competencies required by business graduates, its use in making summative performance judgements in such a precise form, based on the allocation of pre-determined weighting of competencies, remains problematic. First each placement is different, therefore the competencies required by students to complete the work equally is different. Second, while the performance criteria statements provide valuable guidance to assessors, their interpretation inevitably contains a level of subjectivity. In order to meet a level of precision to minimise different interpretations, each would need to be defined in far more detail. As was stated in Chapter 2, given the range of work tasks and activities undertaken by students in a professional business setting, such an exercise is likely to be impractical and inappropriate (Gipps, 1994) and, as noted in Chapter 3, is likely to lead to a spiral of specification that ultimately is likely to fail any reasonable test of validity (Wolf, 1995).

With regard to the issue of *reliability*, two key components of this that affect the business internship assessment, are the reliability of the instrument and the reliability of the assessor. Both need to be attended to if *stability* is to be achieved (Biggs, 1994). In terms of the instrument's reliability, this will require the development of robust criteria that can attend to the complex circumstances affecting student work on placement. However, as stated above, this is likely to be impractical and unachievable. An added difficulty in cooperative education is the ability to recognise the variability in work tasks and responsibilities, and the variability in mentoring influences on performance. The latter refers to the learning support provided to students by the workplace hosts and academic supervisors. Bell (2000) defines a mentor as "someone who helps someone else learn something that she would have learned less well, more slowly, or not at all if let alone" (p. 53). Some of the more committed workplace hosts act as mentors to students, providing a type of 'guided scaffolding' (Vygotsky, 1978) between their knowledge, skills and experiences, and the development needs of students. In addition, academic supervisors also provide a form of scaffold building, largely

focusing on advising students how to maximise their learning and reflective capacity from their workplace experiences.

Given the inherent variability described, it could be argued that for the instrument used to be considered both reliable and fair to all students; performance achievement would need to determine where students start from (e.g., abilities, competencies) and the subsequent level of mentoring support they receive. This would be problematic and most likely to be impractical. Even if this was achievable, there is also the problem of how to ensure assessor reliability. Given that in any one semester there may be up to 50 workplace hosts and up to 20 academic supervisors involved, it is likely that there will be inconsistency in the interpretation of the performance criteria, regardless of how clear that criteria are. Also, as noted in Chapters 2 and 3, assessment occurs within a social context (Wolf, 1995), with those involved in marking each having different values about what constitutes competent performance (Gipps, 1994).

It was apparent to Alice and me that the main issue to address in workplace performance was the summative marking component of the collaborative assessment process. There are two aspects to this. First, the imprecise nature of the process involving interpretation of the criteria against student performance is arguably a symptom of the 11 point grading system, a system that requires such marking precision. Second, the summative grade appeared to be interfering with the developmental value of the formative feedback. These issues are explored further below.

Like all other business degree courses, the business internship uses an 11 point achievement-based grading system (A+ to E, with 'A+' being 85% or above and an 'E' being less than 20%). Precision in allocating marks is an underlying component of this grading system, which enables up to 11 different levels of achievement to be recognised. In the business internship, the combination of the weighted marks given for each of the three assessment components determines the overall course grade. Because of the significant contribution (55% weighting) that the collaborative assessment of work performance makes to the overall grade, a detailed level of precision in allocating marks is expected. In addition to the

current 11 point grading system, institutional policies allow for two other possible grading systems to be used:

- A four point achievement-based system: A (Pass with distinction); B (Pass with merit); C (Pass); and D (Fail); and
- A three point competency-based system: MP (Merit Pass); P (Pass); and NC (Not yet competent)

Alice had been led to believe that business internship was required to follow the same 11 point grading system used by other business degree courses. However, in checking other courses of a similar work-based nature within the institution it became apparent that such courses sometimes used a four point achievement-based grading system or a three point competency-based grading system, while other classroom-based courses in the same programme used the 11 point system. In checking the institutional policies, it was also evident that no guidelines were given on how the three different grading systems may be used, other than a requirement that whichever one was adopted, the course grades allocated to students must meet the requirements of the grading system used. In addition, there is a specification that any changes to grading systems for individual courses need relevant committee approvals.

In our discussions on this issue, we considered that moving to a simpler three or four point grading system may be helpful in trying to resolve not only the issue of weighting allocations, but also in addressing a number of other stakeholder issues identified. In particular, it may create the conditions to help solve some of the validity and reliability issues, particularly in the way criteria are written and the way subsequent performance is considered against this.

The second issue concerned the summative grade interfering with the formative feedback. This problematic situation is not uncommon in more traditional forms of assessment (Black & Wiliam, 1998; Boud, 2000; Cowie, 2006). While paying adequate attention to formative assessment for learning and summative assessment for certification is an important aspect of educator responsibility, referred to by Boud (2000, p.160) as undertaking 'double duty', the way the two are currently connected appeared to be compromising both. It is apparent that the summative component not only may be contributing to invalid

and unreliable results, but may also be diminishing the value of the *formative* feedback provided.

According to Gipps (1994) the nature of assessment (whether formative or summative) determines the emphasis placed on validity and reliability:

If assessment is to be used for certification or accountability then it needs an adequate level of reliability for comparability purposes. If, however, the assessment is to be used for formative purposes, validity is highly important and reliability less so. (p. 137)

Alice considers that the collaborative assessment process is viewed by students, workplace hosts and academic supervisors as an important and valuable formative component of the internship, and we agreed that this was important to retain as a core component of the overall assessment process. It was also considered that by disentangling or removing the summative marking, further attention could be given to improving its formative value, for example, reviewing the structure of the forms and the guidance given to the three stakeholders with a view to enhancing the qualitative comments provided.

In summary, the contextual and social influences on each business internship placement provide conditions that will affect the quality of a student's work, as well as performance expectations and interpretations. While the use of standard performance criteria, based on desirable business graduate competencies, is valuable for stakeholder dialogue, it is of less utility and arguably *unfair* when used for making summative judgements affecting student grades, as students themselves have identified. It was apparent that further attention needed to be given to the formative aspects of the collaborative assessment process, particularly in relation to how we may enhance its overall *consequential validity* (i.e., its subsequent affect on student learning). We also felt that there was a need to review the inter-relationship between the collaborative assessment process and the other two components of the course's assessment, particularly how these components may best work together in contributing to the required workplace performance learning outcomes of the course. Finally, we agreed to give further consideration to the summative marking within a simpler three or four point grading system. These issues were important factors in the development of the new assessment model outlined in Section 6.4.

6.3.4 Learning derived from workplace experiences

6.3.4.1 Pre-intervention assessment method

The two learning outcomes related to the learning derived from workplace experiences are:

- Evaluate and critically reflect upon the project / work processes and outcomes within the context of the workplace environment; and
- Identify, implement, and evaluate a personal development plan

The assessment methods used for these two learning outcomes are completion of a reflective essay (35% weighting) and a set of personal learning goals (10%). The reflective essay has five components or ‘sections’, with related sub-weightings (see Appendix I):

- Introduction / background to placement/student experience (20%);
- Evaluation of placement (55%);
- Evaluation of learning goals (10%);
- Submission of learning journals (5%); and
- Presentation/readability (10%).

Each section of the reflective essay has a brief description of what is required (broad criteria), with the weighting percentages used as the basis of marks available for that section, with an overall maximum of 100 marks. To assist with allocating marks to each section, five categories of criteria are provided: *unsatisfactory* (0-25%); *variable standard* (30-45%); *satisfactory* (50-60%); *very good* (65-80%); and *exceptional* (85-100%). Each of these categories of criteria is supported by a brief explanatory sentence. For example, *satisfactory* means ‘covers most criteria [for the section] to a reasonable standard, but lacking some depth/clarity in places’ (see Appendix I). The bulk of the available marks are for ‘evaluation of the placement’ section. This section requires students to identify and evaluate three to four learning experiences involving workplace tasks or events, ethical issues, and/or connections between theory and practice. Students are asked to describe what happened, how they felt about it, how it impacted on their performance, what they learned from it, and how they would approach the

same situation now. It is broadly based on the model of structured reflection developed by Driscoll and Teh (2001).

The overall intention of the essay is that students are able to critically reflect on their experiences in order to demonstrate their learning. However, it is evident that the marking is focused on what Moon (1999, 2004) refers to as the *process* of reflection, rather than the *product* (or outcome) of the learning. A key tool for assisting reflection and the completion of the essay is the weekly learning journal. This has a standard format that mirrors the ‘what, so what, now what’ approach expected for the essay.

The final part of the assessment involves students setting two personal learning goals. Categories of criteria used include:

- Written as SMART goals (Drucker, 1954) (30%);
- Reasons for selecting goals (20%);
- How goals will be evaluated (30%); and
- Identification of strategies to achieve goals (20%).

As with the reflective essay, criteria are provided for each category to clarify requirements. This element of the assessment is undertaken immediately prior to or at the commencement of the placement, and is focused on the setting of goals. As described above, evaluation of goal achievement is undertaken as part of the reflective essay.

6.3.4.2 Analysis of stakeholder concerns

Stakeholder comments and concerns with regard to this element of the assessment process, identified earlier, are summarised here. Each of these points is then discussed:

- Some academics consider that the reflective essay only identifies what students *may have learned*, with no easy way of seeing whether they have identified the important learning aspects from their experience (i.e., *what they should have learned*);

- Further value to students' future professional development may occur if there is a more explicit connection between the collaborative assessment process, the reflective essay and the personal learning goals;
- Some students would prefer to attach less weighting to the reflective essay, arguing it is too high (i.e., an 'afterthought' and 'anti-climax' to the completion of their work responsibilities);
- Due to the number of assessors involved, there is likely to be inconsistency in the interpretation of the criteria in the marking of the essays;
- Some valuable learning experiences may not be captured in the learning journals or in the reflective essays because students may be reluctant to disclose these to others; and
- There is a potential conflict of interest between academics' supervisory relationship with students, and in their participation in summative judgements of student work (reflections and work performance);

Identifying what students *should have learned*, as opposed to what they say they have learned in their essay, is inherently complex, and is difficult to establish given every workplace is different and each set of tasks and responsibilities undertaken by the students is different. Added to this is that students commence their placement with different backgrounds, influences, values, levels of experience, knowledge and skills. A similar list of workplace hosts / staff variables will also exist. Furthermore, as outlined in Chapter 4, relevant theories of learning add further levels of complexity. For example, learning can be viewed as context-bound, situated and distributed across a workplace community of practice. Importantly, unlike the formal, structured learning that occurs within a community of education practice, learning in the workplace is viewed as being informal, emergent and "a sociocultural phenomenon, rather than an isolated activity in which an individual acquires knowledge from a de-contextualised body of knowledge" (Buysee, Sparkman & Wesley, 2003, p. 267). A related aspect of the sociocultural dimension to workplace learning, highlighted by Engeström, Engeström and Karkkaninen (1995), is the need for students to be able to undertake the necessary boundary crossing between the different cultures of a community of education practice and a community of workplace practice. Thus assessment methods need to consider

how they contribute to students' cultural learning, for example, 'how to get on' and assimilate into the workplace.

In discussing these theories of learning with Alice, we concluded that the current focus of the reflective essay on the depth or process of reflection, rather than the product of learning, was more appropriate given the inherent complexities in determining the outcome of each student's learning. However, we agreed that the structure that was currently provided for the reflections, referred to as a *conceptual framework* by Boud and Walker (1998), would benefit from taking a broader view of learning, for example, by asking students to consider the sociocultural dimension of their learning.

A further aspect of what students should learn from their experiences can also be linked to the need for them to have an understanding of themselves in relation to their future professional development needs. Alice and I considered that the connections between the assessment methods, involving reflection, performance evaluation, and achievement of personal learning goals, could be improved to enhance students' future development needs. For example, students are given feedback on their performance by workplace hosts and academics, but are not required to reflect on this feedback in a way that might inform their future learning goals and professional development needs. Essentially, this component of the pre-intervention assessment did not consider adequately the impact of assessment on future learning, that is, it was not sufficiently *sustainable* in a way that contributes to the long term learning needs of the students (Boud, 2000; Boud & Falchikov, 2006). In addition, emphasis is placed on reflection during and following the work placement, with no requirement to engage in reflection prior to the placement commencing. It was felt that if students were encouraged to reflect on their strengths and weaknesses prior to commencing their placement, in relation to competencies considered important by business employers, this would provide valuable information for identifying personal learning goals for the placement; encouraging what Dewey (1938) refers to as *purposeful action*. Furthermore, as Lave and Wenger (1996) note, such action helps the learner (students) close the gap between themselves (as a newcomer) and the experienced practitioners (the journeymen).

The lack of integration between the assessment components may well contribute to a view held by some students that doing the work is much more important than reflecting on it (which is seen as an ‘afterthought’ or ‘anti-climax’), and that the time and effort in meeting work performance requirements should be mirrored in the weighting attached to its assessment. To some extent the lower importance students place on reflecting on their experiences is not unexpected in internship-type work placements, as Dawson (1976) notes, “associating conscious learning with work experience does not come naturally to students, because they grow up with the mental habit of connecting learning only to books and classrooms’ (p. 18). One could add that students are also likely to connect assessment weighting to the time and effort they put into the related learning activities (Newble & Jaeger, 1983). These influences on students’ attitudes are not easily changed, particularly as the business internship is the first experience that students may have of the workplace, and of critical reflection. While an experienced professional practitioner may consider self awareness and reflection as important contributors to their performance and on-going professional development, most students do not have the benefit of such experience. In our discussions on this issue, Alice and I concluded that the critical reflections needed to incorporate a more tangible post-placement benefit for students that lead to them having a greater awareness of themselves, their skills, and their future professional development needs. This is considered further in Sections 6.3.5 and 6.4.

The issue of the criteria being interpreted and applied differently by academics indicates that this part of the assessment does not meet traditional requirements of reliability. This is likely to relate to the reliability of the instrument as well as to the reliability of the assessors. Alice’s view was that instrument reliability was not the key issue, although she felt that improvements could be made by adding more detail to the main category within the essay (i.e., ‘evaluation of placement’) which accounts for 55% of the marks. She believed that the problem lay in having too many academic assessors. This was also related to the way academic supervisors were allocated to students, with different academics supervising each semester. It was therefore difficult to create a team who understood and became experienced in reflection and its marking. Her own workload commitments prevented Alice from being the sole marker, although she

saw advantages in doing this. We agreed to review this again when we looked more holistically at the issues in relation to the course aims (see Section 6.3.5).

A concern, expressed by some students, was the disclosure of sensitive information about themselves in relation to their performance that may potentially be used by others in making judgements on their performance. The use of journals is considered to be a valuable tool for capturing and enhancing student learning through reflection (Boud, 2001; Moon, 1999, 2004). However, the way in which journals are used subsequently can restrict or undo some of the benefits derived from their use (Boud, 2001). In the case of the business internship, student reflections are a core component of the summative assessment and related marks, with the experiences or ‘incidents’ used in the journals providing the basis for the evaluation section of the essay, worth 55% of the essay’s total marks. When documenting these incidents in their essays, students are expected to demonstrate critical reflection. As outlined in Chapter 4, students may be reluctant to expose their true feelings, uncertainties and weaknesses if they believe this could have a negative impact on their assessment marks.

This issue created a dilemma for us. How does one ensure critical reflection occurs whilst also protecting the interests and confidentiality of the student? From her experiences in using reflective journals with students, Alice stated that she has seen some excellent examples of student learning and development, so not surprisingly she was keen to continue to use them. Alice’s suggestion of a possible solution to this dilemma was to allow students to have a private journal (undisclosed) and a public journal (available for summative purposes). Although this may result in some valuable learning not being exposed to others for summative assessment purposes, from her experience many excellent learning journals and subsequent reflective essays had been written by students in the past that she did not believe compromised students by having this read by others.

We agreed that the notion of private and public journals was a valuable concept, but the issue that still remained was how to resolve the conflict of interest issues for the student, and for the academic who acted as both mentor and marker. In marking the essays, academics may see conflict by the fact that they

have an important role in supporting students in critically reflecting upon their experiences. In one sense, the summative outcome of the essay could be said to be related to the effectiveness of their mentoring. For students, there is a potential conflict of interest in disclosing sensitive information about issues that relate to their performance to somebody who will be summatively assessing the outcome of that performance. For these reasons, we agreed that in principle it was important to separate the roles of mentoring and marking. In response to the question of whether by separating these roles, an independent assessor would be able to determine whether experiences and incidents that students had written about had actually occurred, Alice did not see this as an issue:

I don't believe students will attempt to "make things up", as that would involve an even more complex [cognitive] activity. In any case, they would still need to demonstrate that they had critically reflected on it, which is the main purpose of the assessment [i.e., depth of reflection] and, of course, a core skill they will need as graduates (Field notes, 8 November 2006).

6.3.5 Assessment in relation to the course aims

Our analysis so far had led Alice and me to believe that a more integrated approach to assessment might provide the basis for the resolution of a number of the problems identified, particularly in having a stronger link between the performance requirements (LO1 and LO2) and the learning derived from placement experiences (LO3 and LO4). Our approach to this was to think about assessment more holistically by considering its contribution to the overall aim of the business internship. As stated above in Section 6.2.2, the aim of the course is to help prepare students for employment in business by undertaking a work placement/project of relevance to their study major. A question that Alice and I therefore considered was how might business internship assessment practices contribute to students' preparation for professional practice in their chosen field of study? Importantly, how can the assessment help students move between two very different communities of practice?

In Chapter 2, it was viewed that the world of work is characterised by 'supercomplexities' in which knowledge of what is required in a job is frequently changing (Barnett, 1999). In such a world, workers will need "the capability to

learn and change as a result of experience and reflection” (Duke, 2002, p. 28). Furthermore, competent [lifelong] learners will need to be able to set their own goals and learning needs (Candy, Crebert & O’Leary, 1994; Gipps, 1994), self-monitor their work (Boud, 1995a; Falchikov, 2005; Gipps, 1994), and evaluate their own performance and progress towards their goals or objectives (Brookhart, 2001; Nicol & McFarlane-Dick, 2006; Sadler, 1998). In addition, in Chapter 4 it was noted that in order to enhance metacognitive development, students need to be competent assessors of their own work (Biggs, 2003).

In discussing this, Alice and I concluded that assessment needs to contribute to students’ understanding of themselves in relation to how they are performing, both during and following work performance. During their performance students need to have a grasp of what is expected of them, that is, the standards that will be applied to their work. One approach may be to encourage students to initiate on-going dialogue with workplace hosts and workplace peers, in order to clarify expectations and gain feedback on their progress. At the end of the placement, students need to be able to identify what they have learned and achieved from their performance, in ways that enable them to connect this to their future learning and development needs. Given the influence of summative assessment on student learning, we also considered that student self-assessment needed to become a core feature of the business internship summative assessment process. While this is a feature of the current collaborative assessment process, student self-assessment does not necessarily drive it. In addition, the reflective essay is driven by the academics, with students having no involvement with its assessment.

Ways of broadening self assessment in the business internship may include students determining their own performance achievement, the learning they have derived from their experiences, and their future learning needs. A key challenge is in being able to facilitate this in a way that addresses institutional expectations that assessment practices provide reasonable levels of validity and reliability (notwithstanding the limitations of validity and reliability inherent in work-based learning identified in Chapter 3). As discussed in Chapter 5, students’ learning and performance relies on subjective interpretation, rather than an objective ‘truth’. While a self-assessment approach relies on students’ understanding of

their learning and achievements, and their subsequent honesty when reporting it, this can be corroborated (thereby enhancing reliability) by the other key stakeholders involved (i.e., academic supervisors and workplace hosts). In terms of validity, it has been argued that what students learn and achieve will be unique to them, therefore there is no single outcome that the different student performances can be measured against. What is important, is that the learning opportunity afforded by the particular internship is maximised as far as possible by the student, and also helps to contribute to their capacity for, and their ability and willingness to undertake, future learning.

In summary, when viewing assessment in relation to the aim of the course, it is apparent that assessment needs to consider how it can help prepare students to become lifelong learners and self-regulating professionals. The implication of this is that students need to develop strategies to help clarify expectations of workplace performance standards and gain feedback on their progress. Furthermore, self-assessment needs to be a core feature of the assessment process. Attention therefore needs to be given to how this can be achieved in a way that can provide reasonable assurance of validity and reliability.

6.3.6 Problem analysis: Changes required

Analysis of stakeholder issues and concerns has highlighted that the pre-intervention assessment methods fail a number of tests of validity and reliability (as discussed in Chapter 3). It is acknowledged that validity and reliability tests were concepts that originated within norm-referencing, being applied to more traditional forms of assessment. While arguably many aspects of validity and reliability are of less utility in an internship setting, particularly conventional ways of viewing *content validity* and *construct validity*, they have served to highlight that elements of the pre-intervention summative assessment methods fail reasonable tests of validity and reliability, particularly the issue of *fairness*. In Chapter 3 it was asserted that the nature of criterion-referencing creates tensions between reliability and validity (Gipps, 2005; Harlen, 1994). In attempting to address such issues, Gipps argues that the assessment purpose should be the key driver in determining where the emphasis in validity and reliability should lie. Like many cooperative education programmes an important purpose, and

particular aim of the business internship course, is to prepare students for employment. Thus a focus on relevant workplace competencies and attributes – to prepare students to become lifelong learners and self-regulating professionals – is especially important. Benett (1993) suggests that one way of overcoming the problems with validity in work-based learning is to take a more ‘common sense’ approach to this. In Chapter 3, it was argued that this may best be achieved by viewing content validity and construct validity more pragmatically, in order to take cognisance of the situated nature of work and the contextual factors involved. This could be achieved by increasing the dialogic and collaborative aspects of the assessment, both during and following the placement, thereby enabling the ‘truth’ of performance and learning to emerge through consensus. In addition, it was considered that greater attention needed to be given to: consequential validity (the impact of the assessment on learning), concurrent validity (having an independent assessment of the performance), fairness (ensuring assessment does not advantage or disadvantage an individual student or group of students), systemic validity (improving those practices that contribute to the learning being assessed), and efficiency/economy (the assessment practices are affordable and sustainable). In addition, possible ways to enhance reliability include viewing this as a ‘goodness of fit’ exercise (in matching the evidence against the criteria), seeking multiple views of performance, and having dialogue with the student if needed to address any uncertainties.

The analysis has also highlighted that improvements could be made in the formative, developmental value for students from: the collaborative assessment process, the critical reflections, and the personal learning goals. A summary of the assessment changes needed, that Alice and I considered would help improve student learning and development, attend to stakeholder concerns, and address the issues of validity and reliability, is listed here. These were used to inform the new assessment model (outlined in Section 6.4):

- Adopt a simpler three or four point grading system;
- Remove the summative marks in the collaborative assessment process;
- Consider how the formative value of the collaborative assessment process can be improved;
- Broaden the structural framework of critical reflections, to include:
 - the sociocultural dimension of learning,

- the pre-placement benefits to students (e.g., reflecting on their competencies in order to better inform placement learning goals), and
- the post-placement benefits to students (e.g., a greater awareness of themselves, their skills, and their future professional development needs);
- Take a more holistic approach to assessment, including improving the connections between the four learning components of the assessment (i.e. performance, participation, reflection, and goal setting);
- Enable students to have private and public versions of their learning journals;
- Separate academic roles of mentoring and marking;
- Help students to develop strategies to understand workplace performance expectations; and
- Consider how self-assessment can become a more prominent feature and at the same time meet reasonable expectations of validity and reliability.

6.4 A new assessment method and approach

6.4.1 Introduction

This section looks at how a new model of assessment was developed in order to address the suggested changes needed from the analysis of stakeholder issues and concerns. The new model embraces McDowell and Sambell's (1999) seven point guide for promoting success when implementing new forms of assessment (outlined in Chapter 3), as well as ensuring the three points of *double duty* outlined in Chapter 2 were attended to.

First, attention is given to how improvements can be made to the collaborative assessment process, primarily to increase its value for formative purposes. Next, consideration is given to portfolio assessment, outlined in Chapter 3, and how this student-centred, holistic approach to assessment may create the basis for a resolution to many of the problems identified in this chapter.

The new portfolio model of assessment for the business internship is then outlined. Each phase of this integrated, four-phase model is described, including its contribution in addressing the problems identified. Finally, attention is given to how the portfolio model is to be summatively assessed, including the grading system and the related criteria and evidential requirements.

6.4.2 The collaborative assessment process: Emphasising its formative value

As noted above, while there was considerable value to the students in the formative aspects of the collaborative assessment process, it was considered that this was being compromised by the summative marking. It was felt also that there was scope for improving the process, particularly the forms and materials that supported it, and the removal of the marks allocated to it. We began by reviewing and changing relevant aspects of these materials, before proceeding to review the meeting process. A brief outline of these changes, and the rationale for them, follows. The amended version is shown in Appendix J.

As described above, the pre-intervention collaborative assessment form contained three sections: a cover sheet detailing the workplace and the stakeholders involved, together with a summary of the marks allocated to each competency category; the form requiring stakeholder comments against each competency category; and a guide providing performance criteria at different levels of achievement for each competency category (see Appendix H). Our first task was to remove all the marks and weightings attached to the form and focus our attention on its value as an instrument that would help the parties provide valuable feedback on student performance and development. We also identified a need to make a few small changes to the layout and wording of the form in order to encourage stakeholders to give more attention to their comments. For example, bringing in a summary description of the competency statements at the top of each category would help remind people of the particular competencies they should be commenting on.

When reviewing the fifth competency category, ‘effective placement’, we agreed this was not clear and needed greater clarity in terms of criteria. Given that

the competencies contributing to an effective placement are covered in the other four competency categories, it was considered that this is not a competency category as such, rather as Alice indicated, it is there to recognise the value of the placement outcomes for the organisation, which may or may not be linked to students' levels of competency in completing the work objectives. It is entirely possible that a student may demonstrate satisfactory levels of competency in the four competency categories, yet the overall work produced is not immediately useable or of value to the organization. Conversely, Alice pointed out that students who produce outstanding work of value invariably do so because they have been able to utilise and demonstrate 'outstanding' levels of competency. She considered this fifth category to be important because from her experience workplace hosts want to comment on, and students need to hear, these outcomes. Often these comments get linked back to particular aspects of the placement relating to how students approached certain components of their work. A comment often made by workplace hosts of business internship students is that students sometimes fail to consider adequately the contextual factors in their analysis of and solutions to problems. An example provided by Alice is that students are sometimes prone to taking a generic, text-book approach to problems and their solutions, not considering that there may be more pragmatic or standard, organisational approaches. She believes this is the result of students being unaware and unfamiliar with workplace culture and general norms of practice in the particular organisation or industry. This gap is what Biggs (2003) refers to as a lack of conditional knowledge and Sternberg and Wagner (1986) describe as a lack of practical intelligence. In the meantime, we agreed to change the name of this category from 'effective placement' to 'value of work completed' to better reflect its intended use.

In changing the wording of this fifth category, we realised that we would also need to amend the performance criteria to provide greater clarity at the different levels of 'value'. Unlike other competency categories, this category only had a single statement of performance criteria for each level of achievement (outstanding to unsatisfactory). In determining these criteria, an important factor was Alice's experience in knowing what workplace hosts are looking for in student performance, and what students actually achieve. Over her five years of coordinating the internship, Alice has supervised a large number of students,

attending dozens of collaborative assessment meetings. She has also regularly asked for and received workplace host and academic feedback on both the process and the forms used for determining student performance achievement. This experience and knowledge led her to believe that the minimum expectation of workplace hosts is that students need to complete the work objectives in a way that makes a value-added contribution to the organisation, while recognising that it may require some further refinement, which she currently takes as indicating a 'satisfactory' level of performance. She feels that this minimum expectation takes into consideration that the work of some students will often fall below the level of what might be expected of a more experienced employee, where completed work normally would not be subject to further refinement. Sometimes the work produced by students needs some refinement, such as corrections to language, grammar, phraseology, structure or contextual assumptions made in reports or documents produced. Alice's experience is that such refinements are expected as workplace hosts are aware that most students have no prior work experience and, in the case of the younger international students, minimal understanding of New Zealand culture and lower levels of English language proficiency. Alice therefore felt it was reasonable to describe the criteria for 'satisfactory' performance as indicating that the work meets the expectations of workplace hosts, with the detail generally being correct and sufficient, but may require further refinement to meet organisational needs.

Determining the criteria for 'satisfactory' made it relatively straightforward to determine the criteria for 'unsatisfactory', as this generally became the opposite of what was stated as being satisfactory. In reality, Alice indicated that students failing to perform satisfactorily were generally identified early, and additional support was usually provided to help ensure an acceptable outcome. In a couple of exceptional cases, students were removed from the placement. As a result, in her five years as course coordinator, only one student who had completed the placement failed to achieve a satisfactory performance. Determining the criteria for 'outstanding' work was again influenced by Alice's experience of workplace hosts' views, indicating that this be viewed as work that is immediately useable, with minimal or no further refinement required. In addition, workplace hosts are equally influenced by the overall impact that the work has, including elements of creativity used to provide innovative solutions,

and the related ‘surprise’ factor this can sometimes bring. In other words, their judgement of what is outstanding is often related to their prior expectations of the outcome or solution, which may be related to their prior perceptions of what they believe the student will produce. In discussing this, we both considered that the subjective nature of this may test issues of reliability, given workplace hosts’ influence in determining the outcome. However, we realised that this approach is the reality in many workplaces and that exposing students to this was not unreasonable. As Alice noted, such subjectivity may also be fairer in that workplace hosts may well make unconscious judgements on students (and their likely competency levels) very early in the placement. When they make performance judgements at the end of the placement, they may well be doing this in relation to the change they perceive in students and any ‘surprise’ element will inevitably affect their judgement. We agreed to incorporate these concepts into the criteria for ‘outstanding’, but also to note that this would need to be considered further when determining how to relate this to summative marks or grades awarded to workplace performance (discussed in Section 6.4.5).

When reviewing the criteria for the four categories of competencies and then relating this back to the competencies considered important by employers in prior research, Alice and I came to the view that some important competencies were missing. For example, in a study of New Zealand employers’ views of business graduate competencies (Hodges & Burchell, 2003) there were a number of competencies viewed as having high importance, that had not been included in the current competencies’ criteria, such as *ability and willingness to learn*, *energy and passion*, and *customer service orientation*. Consequently, we agreed to make adjustments to the competency criteria statements to reflect these employers’ views.

While guidance on how to complete the form and prepare for the collaborative meeting is given to academic supervisors and students, this is only given verbally. Reliance is placed on academic supervisors to inform workplace hosts. Given the large number of academics and workplace hosts involved in any one semester, we felt that this may result in some inconsistency in how and when the forms are completed and how they are used. We felt that a cover guide attached to the form would help improve consistency by ensuring all

parties received the same information. The guide could place emphasis on the developmental aspects of the feedback. Particular mention would be made on ensuring comments are as specific as possible, noting that feedback is more valuable if it includes reference to actual events and situations or particular tasks and responsibilities undertaken. The intention here was to try and steer workplace hosts away from giving generalised and positive statements that may only serve to boost the self esteem of students and “have a negative effect on attitudes and performance” (Black & Wiliam, 1998, p. 23). As Boud (2000) suggests, “decentring the ego appears to be a pre-requisite for effective assessment” (p. 157).

Finally, we discussed the three-way collaborative assessment meeting and the issue of removing the marks. Alice felt that some students’ concerns that academics were not in a position to make performance judgements were related to the academics’ influence in the decision-making process on the allocation of marks. By removing the marking component, she believed that this would also remove possible tensions during the dialogue, with students able to be more receptive to feedback (both from academics and workplace hosts). Importantly, the removal of the marks would address students’ concern about *fairness* (as noted in Section 6.4.2.1), given the ‘luck of the draw’ where they do their placement and the work they are expected to do.

6.4.3 Creating a more holistic and integrated assessment method

Analysis of stakeholder issues and concerns had led Alice and me to consider that there would be value in creating a more holistic and integrated assessment method. This would need to consider the inter-relationships between the different learning outcomes, and the related assessment methods employed. It was also evident that if we were to help prepare students to become lifelong learners and self-regulating professionals, they needed to take greater ownership of their own learning, which needed to be reflected in the assessment process. In Chapter 3, the concept of portfolio assessment as an integrated assessment method was introduced. An important feature of portfolio assessment is its evidential nature which enables students to demonstrate achievement of authentic tasks in authentic settings (Klenowski, 2002), as well as “evidence of competence from

their practice” (Brown, 1999, p. 98). Many of the key changes needed, outlined in the analysis of stakeholder issues above (Section 6.3.6), fit well with the perceived benefits of portfolios described by Johnston (2002), which:

- Encourage students to take an active role in their own learning in the shape of formative assessment;
- Offer ‘authentic’ assessment which in turn is likely to provide predictive information about how a student will perform after moving beyond the assessment;
- Allow assessment of a wide range of learning activities, providing detailed evidence of these;
- Help students develop reflective capacity which will in turn enable them to continue learning after passing the immediate course; and
- Encourage students to take an active role in their own assessment in that they may be able to select which work goes in the portfolio.

In addition to these benefits, Alice and I considered that portfolios are also an ideal learning tool for students from diverse backgrounds and cultures. For example, they can provide students with the freedom to express what they believe they have learned and to select and collect evidence of that learning from multiple sources. In addition, they allow students to use their creativity and originality to present evidence in a way that demonstrates they have met the required learning outcomes. It also seems likely that the use of portfolios could make a major contribution to *fairness*, both in recognising the diversity of the students as well as the variability in workplaces and required work objectives. More generally, portfolios can provide all students with a powerful sense of achievement, a greater understanding of their strengths and weaknesses, and a clearer focus for their future professional careers.

The sort of evidence that business internship students may collect, could include: attainment of work performance and the related competencies – for instance, examples of written work, emails, peer testimonials, and the final written comments of the workplace host and academic at the collaborative assessment meeting; the ‘public’ version of students reflections; and relevant information to demonstrate attainment of personal learning goals. Given portfolios are unique and self-created, this leads to the question of how they may be summatively

assessed. In her review of interpretivist approaches to portfolio assessment, Johnston (2004) acknowledges the work of Guba and Lincoln (1989) and Fish (1980) in describing how consensus can play a key part in the decision-making, which is reached through “a dialogical process involving the interpretive community ... in order to achieve intelligent, meaningful assessments of portfolios” (p. 399). In discussing this, Alice and I took the view that this dialogical process was already a key part of the collaborative assessment process in relation to work performance. Thus the outcome of this meeting provided a collective view of performance that took account of the contextual factors involved. However, we agreed that dialogue could be strengthened by giving further attention to the informal meetings between students and workplace hosts, and between academics and workplace hosts, during the placement period. We felt that if this was attended to, it would strengthen the formal dialogue at the collaborative assessment meeting. In terms of dialogue to determine the learning students derive from their experiences this was currently evident in the on-going supervision relationship between the academic supervisor and the student throughout the placement period. We were aware that authenticity and reliability could be strengthened if either a student *presentation* or an *oral assessment* was introduced. However, this had to be considered against the validity issues of *fairness* and *efficiency/economy* (see Chapter 3). For students, this would increase the time needed to meet the assessment requirements, which would be of questionable fairness in relation to workload. In addition, further staff resources would be required which, given the already high resources allocated to the internship in relation to classroom-based courses, was viewed as unrealistic and only achievable through the goodwill of the course coordinator. We took the view that we needed to create a sustainable model of assessment that was workable within available resources and that was not over-reliant on the goodwill of individual staff members involved. We therefore decided not to introduce a presentation or an oral assessment.

In reflecting on the core problems with the current assessment practices, outlined in this chapter, Alice and I became convinced that a portfolio-based assessment method provided the basis for their resolution. Details of the portfolio model adopted follows.

6.4.4 The portfolio assessment model

6.4.4.1 Model outline

The portfolio is created as an evidenced-based, self-assessment model, with students taking responsibility for demonstrating achievement of the four learning outcomes. The model is shown in summary form in Figure 1. This is followed by an explanation of the model through each of its four phases, including how it addresses the problems outlined in Section 6.3.6. How the portfolio is summatively assessed and graded is discussed in Section 6.4.5.

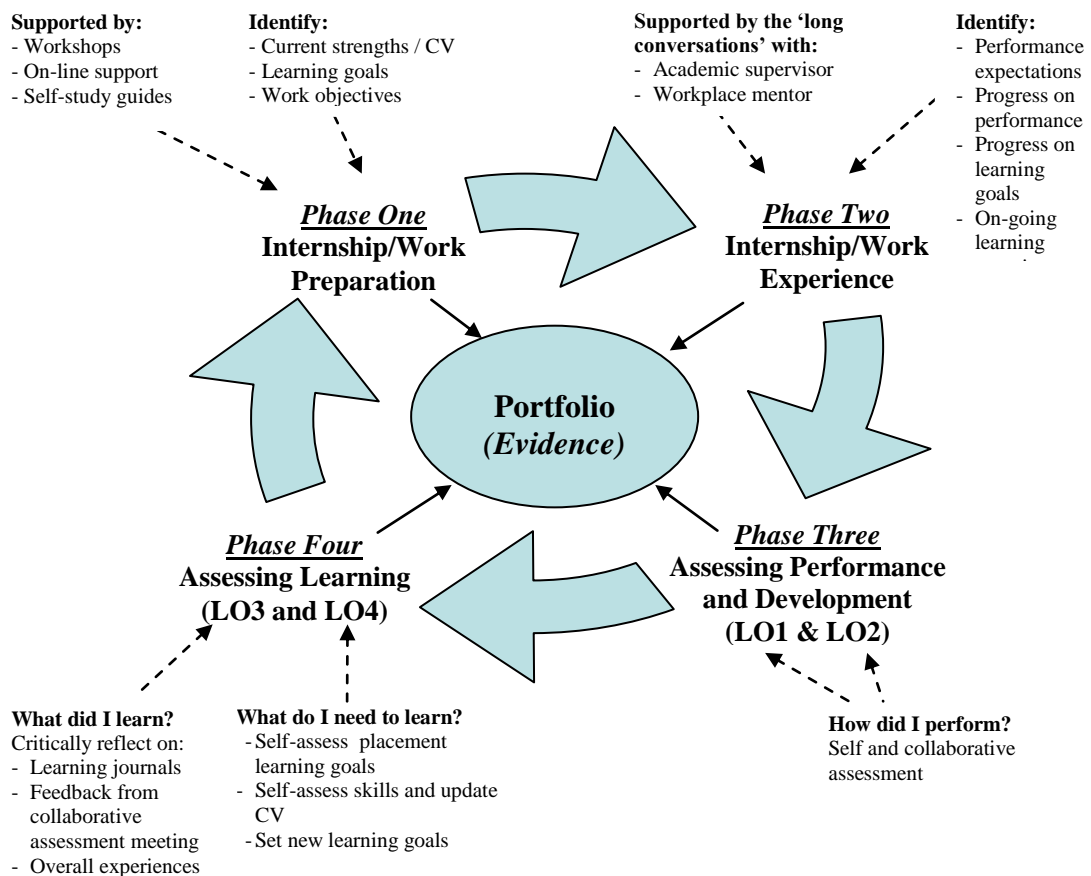


Figure 1: The business internship portfolio-based assessment model

Figure 1 outlines the four phases involved in the portfolio assessment model. The cyclical approach to the model recognises the experiential nature of students' internship learning, and loosely parallels Kolb's (1984) interpretation of Lewin's experiential learning model. For example, goals and work objectives are set in *phase one* (involving reflecting on strengths, weaknesses and past experiences to guide future actions), followed in *phase two* by testing these

through concrete work experiences, which are then reviewed in *phase three* through self and collaborative assessment. Finally, in *phase four* students reflect on their learning experiences (formulating abstract concepts and generalisations) in order to guide future actions. While the model is shown here as a single cycle for the purpose of the internship's assessment, in practice the model provides the basis for multiple, on-going cycles of lifelong learning; creating a framework for students to develop the capacity as lifelong assessors of their work.

The portfolio model also draws upon elements of Boud's (1994) "model for promoting learning from experience" (p. 51), which itself was an extension of Kolb's earlier model. For example, the four-phase, portfolio model acknowledges that the prior personal experiences that students bring into the workplace will influence how they engage with and intervene in the activities they undertake in the workplace (part of Boud's "preparation stage", p. 51). This is explicit when students set their personal and professional learning goals (*Phase one*) which are influenced by their prior experiences, particularly in determining the competency areas they wish to develop during the placement. The portfolio model also expects students to consider the strategies they will employ to meet their goals, as well as identifying performance expectations and progress in order to meet their work objectives. Students will be encouraged and assisted to make sense of the workplace learning milieu they experience "through noticing, intervening and reflection-in-action" (Boud, 1994, p. 51) during their day-to-day work activities. This also contributes to their reflections-on-action through their journals and end of placement reflections (*Phase three*); the latter providing the opportunity for students to "return to their experiences, attend to feelings, and re-evaluate their experiences" (Boud, 1994, p. 52).

The cyclical nature of the model is intended to contribute to students' on-going professional development, by enabling students not only to reflect on their performance and experiences, and the feedback they obtain at the collaborative assessment meeting, but also to use this in a way that helps them identify future goals, professional development needs and career directions (*Phase four*). Ultimately the model is intended to be sustainable in ways that "equip students to be lifelong assessors" of their own learning (Boud, 2000, p. 156).

Each phase of the model includes activities that contribute to meeting the required learning outcomes and it is intended that this will result in the gathering of relevant evidence for their portfolio. The evidential nature of the model means that responsibility for identifying achievement of the four learning outcomes rests with the student. Each of the model's four phases is described in more detail below. This is followed in Section 6.4.5 by an outline of how the portfolio is summatively graded, and how this relates to the criteria and evidence required to demonstrate achievement of the learning outcomes.

6.4.4.2 Phase one: Internship/work preparation

The cycle commences prior to the placement commencing. Students are required to develop a CV to assist with securing a placement. The added requirement for CV completion (compared to the pre-intervention assessment) is that students will now be expected to list their perceived personal strengths (attributes/competencies), as this did not always happen previously. This is to recognise the importance placed on this by employers in recruiting new staff. It is also to encourage students to start thinking about the important competencies that will be required of them when on placement. Specific information on these competencies is provided to students to assist with both their CV and to enable them to consider this in relation to their placement goals (see also Section 6.4.4.5).

Students are encouraged to find a placement that fits with their career intentions. The placement must meet minimum internship requirements (acceptability of both the organisation and the specified work objectives). Once a placement is approved, a standard 'learning agreement' is drawn up and signed, identifying details of the work objectives and responsibilities of the three parties (Appendix F). Students are then required to produce two to three 'personal and professional learning' goals for their placement. The addition of the word 'professional' was to recognise that many of the 'personal' goals identified by students, such as those relating to time management and interpersonal communication, were also work-related. Furthermore, unlike in the pre-intervention assessment, students are encouraged to develop these goals in relation to a self-review of competencies deemed important by employers (see

Hodges & Burchell, 2003), thereby contributing to ‘purposeful action’. Students are expected to seek feedback on these goals from their academic supervisor.

Students are assisted with preparation for their work placement through workshops, on-line support and self study guides. Details of student preparation are provided in Section 6.5.2.

6.4.4.3 Phase two: Internship/work experience

This phase is intended to lead into *phase three* by recognising that work performance is an on-going activity (i.e., effective processes lead to effective outcomes). One of the key strategies students are encouraged to adopt in meeting their work objectives is to set up regular, structured meetings with their workplace host in order to discuss specific performance issues, particularly in gaining feedback on their progress and, where needed, clarifying performance expectations (standards). Students are encouraged also to discuss their personal and professional learning goals with both workplace hosts and academic supervisors. Gaining regular feedback and support in this way is intended to help students know how they are progressing and make any adjustments needed along the way. We were aware that sometimes students may wish to set personal goals of a more sensitive nature and may be reluctant to discuss these with their workplace host. For example, improving their ability to remember names and background information of staff, or setting goals that relate to improving their listening skills. Therefore, it is intended that the decision on whether to disclose such personal goals to workplace hosts be a matter for students. However, as the portfolio is intended to be evidence-based, students will be expected to consider how they are going to demonstrate achievement of the goals at the time they are set.

Students are also expected to have regular meetings throughout their placement with their academic supervisors. An additional purpose of the meetings, added to the pre-intervention practices, is that students discuss progress on their personal and professional learning goals with their supervisor. The student’s learning journal forms the basis for dialogue with their supervisor (details of the learning journal are provided in *Phase four*). This stakeholder

dialogue also involves academics having regular conversations with workplace hosts. In the pre-intervention process, academics met with workplace hosts at the work-site at the commencement of the placement (signing the learning agreement) and at the end (participating in the collaborative assessment). This has been expanded, with academics now asked to make phone contact with workplace hosts periodically throughout the placement. The purpose of these conversations is to discuss student progress and identify any areas where support may be useful – from either the workplace host or academic. Some academics may undertake a mid-placement visit to the work-site and use the collaborative assessment form as the basis for dialogue on performance and development. However, Alice is aware that resource and workload constraints prevent this additional visit from being an expectation.

The dialogue that occurs throughout the placement period between students, workplace hosts and academics provides on-going mentoring and feedback opportunities to assist student development and achievement. In effect, this dialogue can be viewed as a series of ‘long conversations’, which are intended to build into the assessment process “recognition of learning as a gradual coming to know” (Winter, 2003, p. 119). The long conversations also enable students to benefit from both internal and external feedback, which provides information about their present state of learning and performance (Nicol & McFarlane-Dick, 2006). The long conversations also help contribute to improved consistency (and reliability) when interpreting student performance against the competency criteria and the value of the work to the workplace host, specified in the collaborative assessment form (as outlined in *Phase three*). *Consequential validity* is enhanced through placing greater emphasis on increasing students’ awareness of their performance and learning needs. Finally, the ‘long conversations’ also help ensure there is a ‘no surprises’ outcome, which is beneficial to all three parties.

6.4.4.4 Phase three: Assessing performance and development

At the end of the placement the three parties involved are expected to complete the standard ‘collaborative assessment’ form, modified as outlined earlier in Section 6.4.2, prior to attending a meeting. The completed forms are then used as the basis for a three-way dialogue on the student’s performance and

future development needs. The student is expected to play a key part in the meeting by drawing on the evidence they have collected to support their prior self-assessment. The outcome of the meeting is intended to produce a broad consensus on performance and development. As outlined in Section 6.4.2, attention in the collaborative assessment meeting will move away from summative grading to dialogue and feedback that is intended to corroborate and inform achievement and future development needs of the student. The increased emphasis on the during-placement dialogue among the three parties ('the long conversations'), as outlined in *Phase two*, is intended to add to the *construct validity* of performance in the collaborative assessment meeting. The dialogue is intended to strengthen participants' mutual understanding of performance, recognising that meaning and reality are socially constructed within cultures by the members within it (Kukla, 2000). This dialogue is also able to take into account the different levels of support that the student has received, and how they have responded to this, thereby recognising the mediated nature of learning, which Rogoff (1995) refers to as 'guided participation'. In effect, consensus on the 'truth' of student performance, at the collaborative assessment meeting, will be reached by more "informed and sophisticated constructors" (Guba & Lincoln, 1989, p. 44).

The information collected by the student, together with the completed forms and the subsequent dialogue captured in writing by the academic, contribute the portfolio's evidential requirements for the first two learning outcomes (LO1 & LO2). It also provides partial evidence for LO4 (see *Phase four below*). It is important to note that the performance and development outcome is largely formative in nature given students will be expected to meet a minimum satisfactory level of performance required for a 'Pass' (see Section 6.4.5).

6.4.4.5 *Phase four: Assessing learning*

In the final phase students are expected to address the questions 'what did I learn'? (L02), and 'what do I need to learn'? (L03). In answering the first question, students identify what they have learned from their placement experiences through *critical reflection*. They are assisted with this through the use of a learning journal. As discussed in Section 6.3.6 students are encouraged to

keep a ‘private’ and ‘public’ version of this, only disclosing to their supervisor (on a weekly basis) what they are comfortable in showing. In order to accommodate this, electronic journals are recommended to students. As mentioned in Section 6.4.4.3, the journal forms an important part of the ‘long conversations’ students have with their supervisor throughout the placement period. To meet the evidential requirements for critical reflection, students are expected to draw upon: the information they have collected in their learning journals; feedback from the collaborative assessment meeting; and overall critical reflections on their workplace experiences. The latter, overall, reflections replace the reflective essay, and are expected to address a range of learning experiences. A number of prompts or questions are provided to help focus students on things they might be looking for or ‘noticing’ during their placement. These include general learning experiences, personal learning experiences; and workplace culture, values and practices. Explicit in these three areas of reflection is a requirement that students identify the extent to which these experiences have helped inform their future personal and professional development needs and, where relevant, their future career preferences and directions. As outlined in Section 6.4.5 academic supervisors are not involved in the summative marking of their student’s portfolio. This provides the opportunity for students to include in their portfolios those reflections made in their private journal that were not disclosed in their public journal previously submitted to their supervisor, should they wish. Criteria and evidence for meeting the requirements for critical reflection are broadly based on Moon’s (2004) generic framework for reflective writing, focused on the *process* of reflection (i.e., depth of reflections). Details of the criteria for this and other aspects of the portfolio’s assessment requirements are shown in Appendix K.

In answering the second question (‘what do I need to learn?’) students are expected to address three interconnected components, the latter two being additions made to the pre-intervention assessment process:

- *Personal and professional learning goals set for the work placement.* Students self-assess achievement of the goals they set for themselves during the placement.
- *Summary of key skills and competencies demonstrated and developed during placement.* Students are required to provide a brief explanation, with supporting evidence, of how, where and when relevant

skills/competencies were developed and demonstrated during their placement. This is then used to provide an updated CV. This summary and its connection to CV development as part of a portfolio, was influenced by the ‘Experience and Learning Worksheet’ outlined by Brown (2002); and

- *Personal and professional learning goals set for the following 6 – 12 months.* Students are required to draw upon their placement experiences, and reflections of these experiences, to identify a new set of learning goals. For each goal students provide a set of strategies they intend to adopt in order to achieve it, together with ways of identifying achievement.

The additional two requirements are intended to reinforce the important connections between the different components of the assessment. In particular, to encourage students to recognise the relationship between knowledge of themselves gained from reflecting on their performance experiences, including the feedback received from the workplace host and academic, and how this informs their development needs, and the setting of new learning goals or plans.

6.4.5 Assessment criteria and grading

6.4.5.1 Introduction

A three-point summative assessment grading system is adopted for the portfolio - ‘Merit Pass’, ‘Pass’ or ‘not yet competent’. While a simpler two point grading system of ‘Pass’ and ‘not yet competent’ would have been easier to implement given the learning outcomes could either be demonstrated as having been met or not met, the policies governing grading systems in the Takahe Polytechnic did not permit this. In addition, we felt that there may be some value in having a higher-level pass category. As Baume (2001) notes, a category above a pass/fail grade of “outstanding performance” may be useful “for those students for whom outstanding performance is a goal” (p. 18).

Given the evidenced-based, self-assessed nature of the model we were introducing, we considered that the criteria developed would need to include

relevant information on the evidential requirements. In effect, students would need to know what evidence they would need to collect for their portfolios in order to know, and be able to subsequently demonstrate, that they had met the criteria for a 'Pass' or 'Merit Pass'. Our approach was to consider this in two stages. First, consideration was given to the criteria and evidence for a 'Pass' grade, in relation to each learning outcome. Second, consideration was given to the criteria and evidence for a 'Merit Pass' grade in relation to the two key components of the learning outcomes – workplace performance and the learning derived from the placement experience (the full criteria and evidential requirements are shown in Appendix K). Attention was also given to the process to be used in situations where students fail to provide sufficient evidence to meet the criteria. This was followed by a brief overview of the process for portfolio submission, subsequent moderation and grading confirmation.

We were aware that self-assessment, as a tool for preparing for professional practice, is enhanced if students are involved in the setting of the criteria (Boud, 1995). However, due to the complexity of the portfolio and the very different nature of the internship compared to other business degree courses, we did not believe it was reasonable for students to be asked to have involvement in the determination and setting of the related criteria. As Boud (1995) also notes, we should only “ask learners to make judgements on matters on which it is reasonable for them to do so” (p. 191). Our view was that students' lack of work experience and knowledge of business practice will make such a task very difficult, and arguably unrealistic. For example, the work performance criteria and related levels of achievement were developed over time, and were strongly influenced by business employers' views (both from research reports and from evaluative feedback from workplace hosts hosting students for the business internship). The criteria on reflection were based on the work of an experienced academic and author in this field (Moon, 2004). We felt that students would gain experience of the performance criteria as they worked with it throughout the placement period.

6.4.5.2 Criteria and evidential requirements for a 'Pass': Learning outcome one

This learning outcome requires students to complete successfully an approved project or placement in the workplace. While criteria had been established in the collaborative assessment form for each of the performance categories that contribute to successful completion (see Appendix J), including 'value of work', how these criteria relate to achieving a Pass or Merit Pass had not been determined. As outlined earlier, the intention was to ensure that the collaborative assessment process had a formative focus, and care was needed to avoid a situation in which the summative marking component might undermine or compromise the formative value students can gain from this process. In looking at the performance criteria, the view taken was that the assessment of the four competency categories was critical to students' understanding of themselves and their future development needs. Alice and I felt that we needed to ensure that student's self assessment of these competencies, and the subsequent feedback gained from workplace hosts and academics, was not compromised by summative judgements. Alice indicated that in her experience, the stronger performing students had no difficulty in being open about discussing their competency strengths and weaknesses at the collaborative assessment meeting, but that less well-performing performing students are sometimes reluctant to do so. Therefore, we agreed that the criteria for a 'Pass' should not include reference to the four competency categories, but be limited to the category 'value of the work completed', with the minimum level of achievement being 'satisfactory'. The evidence for this would be linked to the outcome of the collaborative assessment process. Alice felt it was unlikely that workplace hosts would be over generous in advocating for a 'satisfactory' level of achievement if the actual value of the work was considered to be below this. If students had performed below such a level, the 'long conversations' should identify this, resulting in relevant actions taken such as the provision of additional support and, in exceptional cases, students being removed from the placement.

Despite Alice's earlier comments that almost all students achieve a satisfactory level of achievement for this category, we felt that a safeguard was needed to protect students who may find themselves in a situation where workplace hosts (or academics) advocate strongly for an achievement level below

‘satisfactory’, resulting in a similar overall outcome, but where they felt such views were overly harsh or biased. We agreed therefore to incorporate a process in which students could later challenge this outcome, through an internal ‘appeal’ process. This would require students to provide evidence to demonstrate that there is ‘reasonable doubt’ with regard to the fairness of the outcome. Relevant evidence may include, for example, the strategies students employed to understand the performance standards expected, and demonstrate how this and their on-going dialogue with the workplace host and academic supervisor was inconsistent with the level of achievement determined in the final outcome. Alice, as the course coordinator, would manage all such appeals, unless of course the appeal affected a student she was supervising. Where students failed such an appeal, but received an ‘intermittent’ outcome, indicating some elements of their work were satisfactory, they may be given a further opportunity to pass the course. This would be dependent upon having already met the evidential requirements for a Pass in the three remaining learning outcomes (outlined below). Determination of this would be done on a case-by-case basis, and may result in students being asked to undertake a further piece of work. For example, critiquing their own actions or inactions with respect to work they completed, including their identification, awareness of, and response to expected performance standards. In the event that students still fail to achieve a ‘Pass’, and remain unsatisfied with the outcome, they also have the right to appeal their grade through standard institutional processes, that are independent of the Takahe Business School.

6.4.5.3 Criteria and evidential requirements for a ‘Pass’: Learning outcome two

Learning outcome two requires students to participate effectively in the workplace. The key component here was students’ effective participation. As discussed earlier in the chapter, the intent of this learning outcome was to ensure that students actively engaged and participated in the broader, daily work life of the organisation. Alice and I felt that the criteria for a ‘Pass’ needed to reflect this and a statement was written along these lines. Our next task was to determine how students might be able to demonstrate this in a way that can be produced in evidence for their portfolios. While completing the work objectives implies that students are likely to have participated effectively to a certain extent, it is not

sufficient by itself. As Alice had pointed out earlier, completing the work to a satisfactory level does not necessarily imply that students have demonstrated satisfactory levels of competency in all four categories. We realised that each student's experience will be different and that active engagement could be interpreted and subsequently demonstrated in a variety of ways. Similarly, what counts as *effective* is also subject to interpretation. We decided that it was necessary to provide an interpretation of these two different terms along with relevant examples to guide students on the types of incidents or situations in which they may be able to demonstrate this. Finally, in recognising that many of the competencies listed in the collaborative assessment form would be utilised in demonstrating effective participation, students would be asked to consider these when collecting evidence. In particular, they may wish to ask for specific feedback on these competencies that can be related to particular tasks, situations or events.

6.4.5.4 Criteria and evidential requirements for a 'Pass': Learning outcome three

Learning outcome three requires students to evaluate and critically reflect upon their work placement experiences. As described above in *Phase three* (Section 6.4.4.4), when students reflect on their experiences they are expected to do so in a way that enables them to stand-back and link these experiences to their future professional development and learning needs. In effect, this extended statement becomes the broad criteria for a 'Pass'. The evidential requirements for addressing these criteria were influenced by Moon's work (2004). Moon views reflective writing as the representation of reflection, and her generic framework for reflective writing became the basis for identifying the depth of reflection needed for a Pass. This was largely based on her second level of depth, a key aspect of which involves students beginning to explore and evaluate their own and/or others' actions, emotions, and behaviour. They are also expected to question their experiences, where appropriate, rather than accepting them uncritically. Given every student's experience is unique it follows that their reflections on these experiences will also be unique. We therefore considered that the evidence to demonstrate achievement of the criteria needed to focus on effective reflective writing that was based on and contextualised in the student's

placement experiences, and how this helps their understanding of future personal and professional development needs.

6.4.5.5 Criteria and evidential requirements for a 'Pass': Learning outcome four

This learning outcome requires students to identify, implement and evaluate a personal and professional development plan. Criteria and evidential requirements developed for this reflect the comments made earlier in *Phase four* (see Section 6.4.4.5) which indicate that this phase is intended to reinforce the important connections between the different components of the assessment. In particular, to encourage students to recognise the relationship between knowledge of themselves gained from reflecting on their performance experiences, including the feedback received from the workplace host and academic on their competency strengths and weaknesses, and how this informs their development needs, and the setting of new learning goals. Full details of the criteria and evidential requirements for a 'Pass' are shown in Appendix K.

6.4.5.6 Criteria and evidential requirements for a 'Merit Pass': Introduction

The remaining task was to determine the criteria and evidential requirements for meeting learning outcomes at a 'Merit Pass' level. Alice and I deliberated on the meaning of 'Merit Pass' for some time, given there were no institutional guidelines, other than it was broadly equivalent to an 'A Pass' in the 11 point grading system. The general consensus was that this needed to be seen as demonstrating 'excellence', and how we determined what was meant by this would need to be considered within the context of the learning outcomes. This led to the issue of how levels of achievement might be specified for the learning outcomes in order to gain a Merit Pass. This could be done either by viewing each learning outcome separately, as is the case with achieving a Pass, or to consider them more holistically. As we reflected on our earlier discussion in analysing the stakeholder issues, we were of the view that a more holistic approach was preferable, viewing learning outcomes through the two core components of the business internship - workplace performance and the learning derived from their placement experiences. Work performance would equate to the details outlined in *Phase two*, and the learning derived from placement experiences learning would

equate to the other three phases. How Merit Pass achievement was specified, through criteria and related evidential requirements, for each of these two components is now discussed.

6.4.5.7 Criteria and evidential requirements for a 'Merit Pass': Workplace performance

An initial issue in determining the criteria for a Merit Pass in workplace performance was the extent to which reliance could be placed on the outcome of the collaborative assessment process, and the implications this may have for any potential conflict between this and its use as a formative process. It was apparent that this process, and the feedback it generated, was the main source of information on achievement outcomes, which would be difficult to ignore or obtain in other ways for evidential purposes. Alice was strongly of the view that if we were also to use this for summative purposes, the standard for a 'Merit Pass' should be set minimally at an 'outstanding' level for the 'value of work completed', and that the evidential requirements include *how* the work has contributed to the organization and *why* it is considered to be outstanding. This seemed to be a reasonable starting position, particularly as evidence of how and why this has added outstanding value to the organisation would enhance its reliability or 'truth' integrity. However, being mindful of academics' views expressed earlier that workplace hosts tend to be over-generous in their appraisal of student performance, Alice felt that this in itself may not be sufficient. Also, we needed to ensure that students demonstrated a similar level of achievement for the second learning outcome affecting workplace performance (i.e., 'effective participation').

Given that utilisation of relevant competencies will be a key determinant in demonstrating effective participation, we realised that we needed to consider how we might link these to a 'Merit Pass'. If we were to make such a link, we first needed to consider how this may impact on the formative value to the students. Given Alice's earlier comment that stronger performing students did not have difficulty in being open about their competency strengths and weaknesses, we took the view that the risk to the formative value of the process, in using this information for summative purposes, was low. Furthermore, Alice considered

that like most employees, for example in performance reviews, students generally were careful in how self-determined weaknesses were expressed and communicated. We realised that we also needed to consider what competencies might relate to effective participation. This may well require use of relevant competencies in at least three of the four competency categories (see Appendix J). Alice suggested that we should state that at least two of the four competencies, together with the ‘value of work’, were demonstrated at an ‘outstanding’ level. This would allow flexibility to recognise that not all categories contributed in the same way to the overall quality or ‘value of the work completed’. While this seemed reasonable, I felt unsure about placing reliance on this given that we had established earlier that each of the parties, particularly workplace hosts who had a key influence on the outcomes, were likely to interpret the criteria differently. For example, while some workplace hosts may be overly generous, others may be the opposite and be reluctant to suggest outstanding for any of the categories. Their influence at the collaborative assessment meeting may result in their views becoming the ‘consensus’ view and the basis of evidence for the ‘Merit Pass’.

With respect to performance outcomes achieved being perceived as overly generous, Alice indicated that in the pre-intervention assessment process such generosity tended to be demonstrated through the higher marks allocated on the summary sheet, rather than the way comments were expressed on the form itself. From her experience of such situations, and from her discussions with other academics, when higher than deserved marks were given they tended to be reflected by fewer qualitative comments given on the forms. Furthermore, the comments that were made did not always appear to be consistent with the way marks were allocated. As discussed earlier, regardless of how clear performance criteria are, inevitably there will be a degree of interpretation and judgement used, with a large number of variables that influence such judgements.

The solution we arrived at was to remove the reference to the five levels of achievement (outstanding to unsatisfactory) for the four competency categories from the spaces given for comments (see Appendix J). This would place responsibility with the student for demonstrating ‘outstanding’ achievement for any of these competencies. Evidence of meeting this would be expected to be found in the comments made by the three parties in the forms produced,

particularly the summary form that reflected the outcome of the dialogue at the meeting, and the consistency of these with the criteria for ‘outstanding’. Students would also be encouraged to gather other sources of evidence, for example, from work staff that the student had worked with. In effect, by producing evidence to support outstanding achievement in relation to competencies, students would also be strengthening the evidence base to support the view that the value of the work was completed to an ‘outstanding’ level. With regard to workplace hosts being perceived as being too harsh on students, for example, through the comments they made on the form, we agreed to put in a safeguard that enabled students to challenge this through a similar internal appeal process to that outlined earlier for a ‘Pass’.

6.4.5.8 Criteria and evidential requirements for a ‘Merit Pass’: Learning derived from work experiences

Finally, consideration was given to the second component, the learning derived from the work experiences, and how ‘excellence’ might be demonstrated. A key aspect of the model was the inter-connections between each of the phases. Given, this component related directly to three phases of the model, one, three and four, and also drew on the learning derived from the collaborative assessment process in the second phase, we both felt that the way the evidence in the portfolio was presented needed to capture this, and that this should be part of the criteria for a ‘Merit Pass’. Specifically, we felt that students’ reflections on their learning should provide a strong and seamless link between their original personal and professional learning goals (PPLGs), their work experiences (particularly what they have learned about themselves and their competencies), and the PPLGs they set themselves for the next 6 – 12 month period. We were also of the view that excellence in learning from experiences is revealed through the depth of reflection in relation to these experiences. As noted earlier, Moon’s (2004) generic framework for reflective writing influenced our criteria for reflection. In particular, we took key elements of her third level of reflection as the basis for the criteria for a ‘Merit Pass’. Such reflections were expected to demonstrate a self-critical perspective that is well considered and balanced, evidenced by the use of an ‘internal dialogue’ (self questioning) to explore possible underlying motives, beliefs or values for their own and/or others’ views, behaviours and/or actions. It

was important that this dialogue makes reference to the context/situation in which the behaviour, actions, etc. arose. In addition, such reflections might indicate that some ‘internal change’ has occurred, for example, in having a greater awareness of: their thinking processes; their strengths and weaknesses; their own and others’ beliefs and values; and/or the way that they learn.

6.4.5.9 Failing to provide sufficient evidence for a ‘Pass’ or ‘Merit Pass’

Should a situation arise in which evidence of meeting the two learning outcomes related to workplace performance cannot be supplied, and therefore the student may be deemed to be ‘not yet competent’, this should be already known in advance of portfolio submission, as the academic supervisor will be expected to have communicated this to Alice (as the internship coordinator). Essentially, the ‘no surprises’ nature of the ‘long conversations’ means work performance issues are expected to be picked up and dealt with well before the end of the placement. Should lack of evidence for workplace performance not be picked up earlier and/or the student fail to produce sufficient evidence to demonstrate achievement of the remaining two learning outcomes, the assessment process allows for portfolios to be resubmitted. This recognises the consequences or ‘high stakes’ nature of failing the course. These consequences may include a student having to spend another semester to complete their degree, given for many the business internship is completed in their final semester of study. In addition, to have the words ‘Not yet competent’ appear against this course on a student’s academic transcript will have consequences beyond their studies, particularly if potential workplace hosts request their transcript. However, Alice felt that there should be no resubmission allowed for a student who self-assessed their portfolio as meeting the criteria for a ‘Merit Pass’, but whose portfolio was subsequently determined to be a ‘Pass’ by the validation team (see Section 6.5.5). There were a number of reasons for Alice’s view on this. First, if resubmission was allowed, this would give a message to students that they always had a second chance to show excellence. Excellence in her view was being able to demonstrate this first time, when required. The analogy she used was that she did not believe employers would be so accommodating to their employees, therefore resubmission would send the wrong message to students in a course of this nature. Second, resubmissions may also encourage students to simply submit the portfolio for

‘Merit Pass’ but only to a standard of a ‘Pass’, for example, by knowingly paying insufficient attention to the evidential requirements (particularly the critical reflections) due to pressure of meeting the submission deadline, as they would have time later to fix this up for a Merit Pass should they wish. Finally, and arguably the most compelling reason, Alice felt that this was unlikely to be supported by the programme committee, who would need to approve the changes to the business internship assessment (see Section 6.5.1). While hopefully they would accept the rationale provided for resubmission in order to gain a ‘Pass’, Alice felt it most unlikely they would support resubmission for a higher grade, given this did not occur elsewhere in the business degree. The consequences at stake here was the precedent this may set for other business degree courses, and the staff workload and resource implications that may follow. This was likely to be a key issue for the three school budget holders on the committee. It was therefore agreed not to allow for resubmission for a Merit Pass. However, Alice pointed out that when validators were reviewing students’ self assessment (as outlined in the following section), she would ask validators to take into account that this was the first semester of the portfolio’s introduction, and that any benefit of the doubt should be given to students. In addition, where minor omissions were apparent in the evidence supplied in the portfolio this should be highlighted for reconsideration by the validation team (who discuss all portfolios where individual validators have not validated the students’ self assessment).

6.4.5.10 Moderation (validation) of student self-assessment

An important way of increasing validity and reliability in portfolio assessment is through *moderation* (Gray, 2001). Moderation was therefore adopted for the business internship portfolio assessment, with academics having a *moderation* role rather than a *marking* role by moderating (or validating) student’s self-assessment. Alice agreed to select a small team of experienced academic supervisors to validate student’s self assessment. These academic validators will be allocated, randomly, a selection of student portfolios. Academics will only be able to validate portfolios of students they did not supervise, to ensure separation of duties and to avoid any potential conflicts of interest.

To reinforce the importance placed on students' self assessment in presenting their portfolios, in situations where individual academic validators do not believe students have provided sufficient evidence for a Pass or Merit Pass, the portfolio is subject to review by other validators (minimally this will include further review by at least three other academics, referred to as the 'validation team'). The decision of the validation team is final. Given the complexity and uniqueness of the assessment model, Alice and I felt that it was inevitable there would be some portfolios submitted that may have some documentation missing, and that it would be better to identify this before handing the portfolios over to the validators, as to do so may increase the time and cost in keeping track of the portfolios. For this reason, Alice agreed to do an initial check of portfolios to ensure all obvious documents had been included before handing them to validators (e.g., the four collaborative assessment forms, the learning journals, end of placement reflections, CV, and PPLG's). Given the newness of the portfolio, both for students and academics involved, we also agreed that students who had submitted for a Merit Pass would not be penalised if they had failed to supply all relevant documents from this initial check. The process for portfolio submission, validation and grading confirmation is summarised in '*The assessment validation and grading process*' flowchart (see last page of Appendix K).

6.5 Preparing for implementation of the new assessment model

6.5.1 Gaining support and approval

Having completed the development of the new portfolio-based assessment model, the next step was to gain approval from the business degree programme committee to implement it. Prior to seeking such approval, we needed to determine the extent of the feedback sought on the model from the three key stakeholders involved prior to its introduction. On the face of it, obtaining feedback from the stakeholders (students, academics, and workplace hosts) seemed to be a sensible and methodologically sound approach to take. However, it soon became apparent that this would not be straightforward, given the relative complexity of the portfolio model, and in fact may not be realistic or necessary in all cases. In presenting the new model for feedback, it was likely that an explanation would need to be given as to why it was being introduced and the

problems it was attempting to resolve. Given the extent of the issues that have been described in this chapter affecting validity and reliability, we felt that this would be very difficult to explain to students without engaging in considerable discourse. Furthermore, given the evidential, self-assessment basis to the model we felt it would be unreasonable to expect students to understand and appreciate its potential utility and value without actually engaging with the model in practice. In relation to gaining workplace host feedback, Alice pointed out that workplace hosts' views and concerns were already known and that these had been paramount in the development of the new model. In effect, we had already responded to their main concern with the collaborative assessment process by removing the marking element and enabling them to focus on their feedback to students. Other changes made to the collaborative assessment were relatively minor.

In terms of gaining feedback from academics, Alice pointed out that when changes were made to assessment methods in other courses, these were based on the informed professional judgement of the academic course coordinator, which was then subject to review and approval by senior academics on the programme committee prior to its implementation. While such changes may be subject to prior informal discussion among academics teaching on the particular course, she did not believe that staff would go to the lengths we had gone to in responding to stakeholder concerns by engaging with the literature in an iterative way over several months in order to find potential solutions. Alice was also of the view that many academics in the Takahe Business School held more traditional views on pedagogy (e.g., based on behaviourist principles, as discussed in Chapter 4), and may be reluctant to embrace a method of assessment where students took primary responsibility for determining their own grades. However, we agreed that gaining feedback from academics who had supervised business internship students in the past would be valuable, as there may be aspects of the new model that we had not fully considered. We realised that this could be achieved at the same time as presenting the portfolio model to the programme committee for approval, as the committee is made up of a number of senior academic staff in the school, most if not all of whom have had experience in supervising business internship students.

We were aware that what we would be proposing to the programme committee would be unlike assessment practices elsewhere in the business degree,

and therefore had the potential to cause some anxiety and possible resistance. We were also aware that, when implemented, the acceptability of the model to all three stakeholders would be of critical importance. As a result, we decided to request approval of the portfolio model for two semesters only, in effect running it as a pilot for a year. We agreed to provide assurances that relevant stakeholder feedback would be sought following its implementation and that this would inform an evaluation of the portfolio model. This would then be presented to the programme committee at the end of the year. The approach taken, as described in Chapter 5, was to collect some data in semester one and the remaining data in semester two. The committee could then decide whether the model had sufficient Merit to gain permanent approval (once assessment methods are approved they can be used indefinitely, without further approval). The portfolio model was subsequently presented to the programme committee and following considerable discussion (largely in explaining the complexity of the model) it was approved, without amendments, on the proposed basis.

6.5.2 Student preparation and support

Students were prepared for the internship through the provision of a number of workshops (discussed later in this section) and course materials (both in hard copy and on-line). These were supplemented by on-going support throughout the placement from the course coordinator (e.g., clarifying requirements, sending weekly emails of things students should be considering and paying attention to) and from the one-on-one supervision support from their academic supervisors (see next section). In addition, as portfolio assessment was a new concept, I assisted Alice by developing a number of new learning materials for students, in addition to those already used in the course, in order to prepare them for the specific requirements of the portfolio assessment. This was an iterative process, with Alice providing relevant critique of drafts, until these were finalised. The key materials developed were in the form of a set of guidelines for completing the portfolio (see Appendix K), supplemented by four related on-line, self study guides that were intended to reinforce the portfolio concepts and requirements in the guidelines and the learning activities involved in the pre-placement workshops.

The four supporting study guides were made available on-line, through the 'BlackBoard™' learning tool that supports this and other business degree courses. Each study guide was structured in a way that engaged the student in relevant learning activities to reinforce the concepts being outlined. Study guide one provided an overview of the portfolio requirements, with the remaining guides providing guidance on its related components. The study guides are briefly described below.

Study guide one provides an overview of the general purpose of portfolios, including what they are and why they are used. It also outlines the overall requirements of portfolio assessment in the business internship, emphasising its self assessment basis and the importance of gathering evidence to demonstrate achievement of the required learning outcomes. Finally, it outlines how the portfolio should be structured, with an overview of how the new three point grading system is used.

Study guide two outlines how work performance will be assessed. Students are introduced to the two key components affecting this: developing strategies to help prepare them for a successful performance outcome and relating this to how their work performance will be evaluated via the collaborative assessment process. Emphasis is placed on the importance of students being able to answer the question 'how will I know I have done a good job', and collecting relevant evidence to demonstrate this. This also includes paying attention to *how* they go about completing their work (the process or means) and seeking knowledge of workplace host expectations and standards. Attention is also drawn to the importance of the different competencies in order to demonstrate 'effective participation'. A link is made to the competency statements, and students are given a related exercise to assist understanding of some of the terms.

Study guide three focuses on the learning derived from students' placement. The intention of this study guide is to assist students' awareness of what is required for their portfolio in relation to evaluating and critically reflecting on their work experiences, including feedback gained at the collaborative assessment meeting. Reference is also made to additional materials developed in the pre-intervention study guide on reflections, developed by Alice (much of

which supplements related learner activities in the workshops). Attention is also given to the requirements for developing a personal and professional development plan for the placement, including the relationship between this, their subsequent reflections on their experiences, and how this informs future development plans. Reference is made to the competencies deemed important by business employers and how this can help inform students' personal and professional learning goals. An outline of the *summary worksheet* for capturing competencies developed during the placement is provided and how this may be used to update their CV.

Study guide four provides details of the assessment grading and validation process. An outline of the three point grading system is provided. This is followed by details of the two main processes involved; self assessment and subsequent academic validation. Information is also provided on the resubmission process, where this is required.

The pre-placement workshops ran for four weeks and covered a range of learning activities aimed at helping students to maximise their workplace performance and the learning they derive from their experiences. Particular attention was given to: the inter-relationship between performance and learning; developing strategies for determining workplace performance standards and developing skills in monitoring progress towards achievement of work objectives; self awareness of competency strengths and weaknesses; understanding of reflection, including noticing and paying attention to their own thoughts, feelings and emotions, and expressing this through reflective writing in their journals and portfolio; goal setting; communication at work; and paying attention to workplace sociocultural influences and norms of practice, including ethics. In addition to these workshops, the institution's Career and Employment Centre ran on-going workshops and one-on-one support for students. These included help with CV development, how to apply for jobs/placements, personal presentation, and interview techniques.

Once the placement commenced, students were sent automated emails each week (set up by Alice) reminding them of things they should be considering and paying attention to during their placement. These were generally done by asking one or more broad questions, many of which were based on the prompts

provided to them in the portfolio guidelines to help their critical reflections (see Appendix K). Finally, students were invited back for a workshop in week eight (approximately two thirds of the way through the placement period). This was intended to enable students to discuss their work experiences and any particular issues concerning completion of their portfolios.

Finally, students were informed that portfolios can be submitted in hard copy or electronically. While e-portfolios have a lot of advantages, particularly for the academic validators, we felt that students may prefer to provide their portfolios in hard copy given that some of the evidential materials and documents needed for their portfolio may be easier to collect in this way. For those students wishing to provide an e-portfolio, software was made available for this purpose, including a related on-line self-study training guide.

6.5.3 Academic supervisor preparation

As allocation of academic supervisors is often not finalised until close to the commencement of the placements, a number of individual preparatory sessions were organised for supervisors in addition to group workshops. I assisted Alice with running these sessions, which were focused mainly on briefing academics on the requirements of the portfolio assessment, whilst also including general supervisory aspects of their role. Relevant resource materials and the requirements of the portfolio were provided to supervisors.

Academic supervisors were also asked to brief the workplace hosts on the collaborative assessment process. They were asked to pay particular attention to the new guidelines provided with the forms, indicating the formative focus of the feedback and its importance to students' professional development. In addition, academic supervisors were asked to encourage workplace hosts to meet regularly with the students and provide regular feedback on their progress and clarify expected performance standards, with the intention of ensuring there were no surprises in the discussion of performance at the collaborative assessment meeting. Finally, academic supervisors were asked to have regular contact with workplace hosts (generally by phone) during the placement, as part of the 'long

conversations’, in order to discuss student progress and identify any areas where further support for the student may be useful.

6.6 Chapter summary

This chapter outlined the process used for developing a new model of assessment through an intervention in a business internship. This involved a review of unresolved issues and problems associated with current assessment practices, identified by stakeholders. An analysis of these issues was provided, drawing on relevant aspects of the literature discussed in earlier chapters. These served to inform the dialogue between the researcher and the internship coordinator over a six month period. The analysis suggested that current assessment methods failed reasonable tests of validity and reliability. From this analysis details of the necessary changes needed were identified. Details of the changes made to the collaborative assessment form and processes were outlined, including the removal of the summative marks. The intention of these changes was to focus greater attention on the formative development aspects of students’ current and on-going learning. The revisions to the collaborative assessment process were also intended to contribute to a more holistic approach to summative assessment, through the creation of an evidence-based, portfolio assessment model. The four phases of the model were described, highlighting the inter-connections between them, with its cyclical nature intending to contribute to students’ development as lifelong assessors of their own learning.

An outline of the portfolio assessment criteria, evidential requirements and grading were then presented. This highlighted the self-assessment focus of the portfolios, which requires students to determine how they have performed and what they have learned. Rather than being ‘marked’, the self-assessed portfolios are moderated by academics through a two stage validation process. The portfolio assessment model was subsequently discussed with the business degree programme committee, and approved for implementation, initially over a two-semester (12 month) period. Finally, an outline of the preparatory materials and processes for students and academic supervisors was provided. Findings from an evaluation of the model’s implementation are provided in the following chapter.

Chapter 7

Model Implementation: Findings

7.1 Chapter outline

This chapter describes the implementation of the portfolio-based assessment model presented in Chapter 6, and reports on the findings of data collected by stakeholder group. The purpose of the data collected was to give further attention to the research question, outlined in Chapter 5, concerning the portfolio assessment model introduced:

How can a student's workplace performance and learning be assessed appropriately within a business internship course?

As outlined in Chapters 5 and 6, the implementation of the new model of assessment was intended to run for a year (over two semesters), with some data collected in semester one and further data collected in semester two. Because the portfolio assessment was a new concept for Alice, myself and the School's staff and students, it was felt that adjustments may be needed to the model following its introduction in semester one. Given the tight timeframe between the two semesters the main, although not exclusive, focus of the data collection at the end of semester one was to gain stakeholder feedback on the acceptability of the model. Analysis of this feedback would enable any necessary adjustments to be made to the model in semester two, and would also give direction for remaining data to be collected at the end of semester two.

The first part of this chapter (Section 7.2) describes stakeholder feedback obtained following completion of semester one. The second part of the chapter (Sections 7.3) describes the data collected and analysed from various stakeholders in semester two. Of note, is that no further data were collected from workplace hosts in semester two. As will be shown, quantitative feedback received from workplace hosts in semester one showed a high level of satisfaction with the different aspects of the course and its assessment that were of relevance to them. Workplace hosts also provided valuable qualitative feedback in semester one. While some changes were made to preparatory materials and workshops for

the portfolio in semester two (resulting from stakeholder feedback at the end of semester one), these did not have a direct impact on the part of the assessment process involving employers (i.e., the collaborative assessment process and related materials were the same in both semesters).

7.2 Stakeholder feedback: Semester one

This section outlines the data collected from stakeholders in semester one. Initial attention is given to interim feedback collected from students during a mid-semester workshop. At the end of the semester, data were collected from students by way of a detailed questionnaire, eliciting responses on different aspects of the internship that impacted, directly or indirectly, on the assessment. A review of the final grades is then presented. This involves an analysis of the self-assessed grades, including a comparison with the final grades awarded. The review also includes qualitative data collected from observations of two academic validators' meetings. The first involves a preparation workshop for validators, and the second involves a review (or moderation) of those portfolios where students self-assessed grades differed from the individual validator's grade. This is then followed by an outline of discussions held with the internship coordinator Alice, regarding adjustments made to the portfolio assessment prior to semester two. Qualitative data collected from three focus groups of academic supervisors is then discussed. Finally, attention is given to a telephone interview conducted with workplace hosts, based on a questionnaire that elicited hosts' views on a range of issues affecting the portfolio assessment model, either directly or indirectly.

7.2.1 Interim student feedback during the semester

All students were encouraged to attend both the pre-placement workshops and the 'during-placement' workshop held in week eight of the semester. As described in Chapter 6, the purpose of the pre-placement workshops was to prepare students for the placement as well as the portfolio assessment. These workshops are not compulsory, therefore it was anticipated that attendance may be variable. The on-line learning materials were intended to ensure that those who did not attend had sufficient information available to ensure they were adequately prepared. Despite encouragements, attendance at the four pre-placement

workshops was similar to attendance levels achieved in previous semesters. This ranged between just under 60% to 70% attendance (16 to 20 students attended from the 28 enrolled). The newly introduced ‘during placement’ workshop only achieved a 28% attendance, that is, eight students attended.

The ‘during placement’ workshop was held to enable students to provide feedback on their placement experiences to date, and to identify any issues affecting their portfolios, particularly their understanding of requirements. It was anticipated that attendance would be lower than the attendance at the pre-placement workshops because some students might have work commitments while others may have other course commitments (i.e., full-time students were typically undertaking two other papers in parallel to the business internship). For those unable to attend, an email was sent inviting comments and questions affecting their placement or the assessment requirements. All names below are pseudonyms.

Most of the feedback provided by students related to their placement experiences. Jing Li talked about her initial nervousness in starting work and how surprised she was at the level of support and helpfulness of the staff. William commented on his experiences working for a chartered accounting firm, and the unexpected emphasis placed on clients when undertaking audits, “the audit focus is very detailed, lots of things to check ... Before we went, my boss spent lots of time explaining [the] importance of [the] client and making [a] good impression. I never thought about this before”.

When invited to comment on the assessment requirements, it was apparent that most students either had given this little prior thought or were a little confused about some elements of it. For example, Iman, who was doing a marketing project in an advertising firm, commented that he had set up weekly meetings with his workplace host, and commented these had been particularly helpful, “I get really good feedback on how I’m going and I am able to ask questions on things I’m not sure about”. But when asked about how this might help him in the collaborative assessment process, Iman seemed unsure, other than saying he expected his boss to give positive feedback. Comments from other students indicated some confusion with the collaborative assessment process, with

hard copy versions of the guidelines seemingly different to the version appearing on the on-line BlackBoard™ site. On checking this, it materialised that there were several files remaining from the pre-intervention period, including a number of old assessment forms. These were subsequently removed and students informed accordingly.

All students indicated they had been using their learning journals, and a number expressed comments on its value, particularly in getting them to think about what motivates people and why they do what they do. As Lucian highlighted, not all these experiences related to work issues. She recounted her experience of a middle-aged work female colleague who arrived at work every day in gym shoes and shorts, having run to work from home. She then showers and changes into work clothes at work. At first she just put this down to the woman being a bit obsessive and a sort of “health freak”, but later when she got to know her it materialised that she was preparing for a marathon. Lucian, who had enjoyed running at school but had done little sporting activities since, was inspired by this and began to run again herself.

While the use of the learning journal seemed to be well understood, how this related to the requirements of the portfolio seemed less well understood. It seemed that most students interviewed had not given any further consideration to the details of the criteria for the critical reflections in the portfolio since the pre-placement workshops. When discussing this with the course coordinator, Alice, her view was that this may be because students’ experience of study elsewhere is that assessment is something you concern yourself with when the deadline for completion gets closer. The idea of gathering evidence of achievement for the portfolio from week one was new to students and their habits would not change easily. Alice pointed out that the student network is very powerful, and she felt this was likely to be used in passing on critical information affecting the portfolio assessment requirements to future cohorts.

7.2.2 Student evaluation: Questionnaire response

A questionnaire was administered to students at the end of their placement (see Appendix A). Briefly, the questionnaire asked students to indicate their level

of agreement with a broad range of statements. A five point Likert scale was used, ranging from 1 (strongly disagree) to 5 (strongly agree). These statements were incorporated into five areas: value of the course; assessment of the course; organisation of the course; academic supervision; and workplace host supervision. The questionnaire also provided space for students to give reasons or comments for their numeric response to each question. In addition, students were invited to provide overall comments on what they liked about the course, and asked to say how the course could be improved.

In total, all 28 students who completed the business internship were given questionnaires to complete. Of these, 20 were completed and returned, proving a response rate of 71%. The data obtained from the questionnaire were analysed using standard statistical tools on Microsoft Excel™. It is acknowledged that while the data are ordinal an assumption cannot be made that the data intervals are equidistant. However, for the purpose of providing a descriptive overview, estimated means and standard deviations have been used to show the findings for each section of the questionnaire. In addition, the spread of responses is provided for each statement, rounded to the nearest one percent. The findings are shown in Tables 7.1 to 7.5. As very few comments relating to the individual statements were made by students, these have not been included in the analysis.

Table 7.1: Students' evaluation of the business internship in semester one: Value of the course* (N=20, Likert 1=strongly disagree, 5=strongly agree)

	Mean	Std Dev	--- Response (%) ---				
			5	4	3	2	1
The course has been demanding and stimulating	4.25	0.79	40	50	5	5	
The course has extended my present knowledge and skills	4.35	0.81	50	40	5	5	
The course has assisted my <i>professional</i> development	4.40	0.94	60	30		10	
The course has assisted my <i>personal</i> development	4.55	0.60	60	35	5		
The course has improved my knowledge of the workplace and host expectations	4.30	0.92	50	40		10	
My self confidence has improved	4.15	0.81	35	50	10	5	
Overall, this course has been of value to me	4.30	0.73	40	55		5	

* The term *course* is used for all business degree papers, including the business internship

Table 7.1 shows all means for responses to statements relating to the value of the course are above four, with at least 85% of students agreeing or strongly agreeing with the statements given. This appears to indicate that students feel they do gain value from the course in a number of ways. Of note particular note, is that the majority of students (60%) strongly agreed that the course has assisted both their professional development (mean of 4.40) and their personal development (mean of 4.50).

Table 7.2: Students' evaluation of the business internship in semester one: Assessment of the course (N=20, Likert 1=strongly disagree, 5=strongly agree)

	Mean	Std Dev	--- Response (%) ---				
			5	4	3	2	1
As a result of completing the portfolio, I feel more confident self-assessing my competencies	4.25	0.79	45	45	5	5	
As a result of completing the portfolio, I feel more confident self-assessing my work performance	4.20	0.77	40	40	20		
As a result of completing the portfolio, I am more able to understand myself and the way that I learn	4.05	0.83	30	50	15	5	
I intend to use elements of the portfolio for my personal and/or professional development in the future	4.30	0.80	45	45	5	5	
The portfolio's self assessment process was a valuable learning experience	4.20	0.83	40	45	15		
I understood what I needed to do in order to gain a Pass Grade	4.35	0.67	45	45	10		
I understood what I needed to do in order to gain a Merit Pass Grade	4.18	0.78	40	40	20		
Using a competency-based grading system (Merit Pass, Pass etc.) is appropriate in this type of course	4.30	0.66	40	50	10		
Overall, the portfolio assessment process was appropriate and fair	4.20	0.52	25	70	5		
The collaborative assessment guide was helpful in outlining expected workplace competencies	4.50	0.61	55	40	5		
Prior to the three-way meeting I had collected relevant and sufficient evidence to support my self-assessment	4.55	0.51	55	45			
Prior to the three-way meeting I felt confident that my self-assessment would be confirmed by the host sponsor and academic supervisor	4.55	0.51	55	45			
The feedback I received at the Collaborative Assessment meeting was valuable and fair	4.60	0.60	65	30	5		

Table 7.2 shows that all means for responses to statements relating to the assessment of the course were also above four, suggesting that students are generally satisfied with the assessment. The strongest support was given for the

last four statements relating to the collaborative assessment process with more than 95% of the students either agreeing or strongly agreeing with the statements given. These responses appear to indicate that students felt well prepared for the meeting and valued the process.

Table 7.3: Students' evaluation of the business internship in semester one: Organisation of the course (N=20, Likert 1=strongly disagree, 5=strongly agree)

	Mean	Std Dev	--- Response (%) ---				
			5	4	3	2	1
All necessary course information was clearly communicated to me	3.80	0.62	5	75	15	5	
I was satisfied with the service provided to me by the Course Coordinator	4.45	0.51	45	55			
My work placement was undertaken in an appropriate organisation	4.70	0.47	70	30			
<i>The following workshops were helpful:</i>							
Week One: Course overview; Workplace competencies; DVD-Rules of Work; Video-Getting organised;	4.00	0.61	15	55	15		
Week Two: Personal vision; Ethics at work; Reflection; Portfolio assessment (1) - overview	4.12	0.60	23	65	12		
Week Three: DVD-Giving/receiving feedback; Working in teams (treasure hunt exercise)	4.00	0.82	25	56	13	6	
Week Four: Personal & Professional learning goals; Setting performance measures; Portfolio assessment (2)– Requirements; Collaborative Assessment Process & Guide;	4.11	0.58	22	67	11		
<i>The following aspects of BlackBoard™ / On-line Support were helpful</i>							
S/Study unit: Portfolio 1 - An Overview	4.05	0.71	21	68	5	5	
S/Study unit: Portfolio 2 - Achievement of Work Objectives	4.05	0.71	21	68	5	5	
S/Study unit: Portfolio 3 - Workplace Learning & Future Development Plans	4.20	0.70	30	65		5	
S/Study unit: Portfolio 4 - Assessment Criteria and Grading	4.21	0.79	3	53	5		
S/Study unit: Reflection	4.06	0.57	20	65	15		
S/Study unit: Ethics at Work	4.00	0.77	22	61	11	6	
S/Study unit: Personal Vision	4.17	0.71	28	67		5	
S/Study unit: Personal & Professional Learning Goals	4.21	0.79	37	53	5	5	
S/Study unit: Challenge FRAP™	3.88	0.62	13	62	25		
Documents and materials posted on BlackBoard™	4.00	0.59	17	67	16		
The regular / weekly emails sent by the Course Coordinator	4.47	0.51	47	53			
OVERALL, I was satisfied with the BlackBoard™ / On-line support provided	4.16	0.60	26	63	11		

As with the previous two sections, Table 7.3 shows that most students agreed or strongly agreed with the statements relating to the organisation of the course, indicating overall agreement that they were adequately prepared for the course and its assessment. Only two statements had a mean score of less than four. The first related to course information being clearly communicated (mean score of 3.8). The possible reasons for this relatively lower score are discussed further in relation to the analysis of the overall comments made by students (following Table 7.5).

The second statement with a mean of less than four was related to the helpfulness of the on-line self study unit for the ‘FRAP™’ software that was available for those students wishing to provide e-portfolios (mean score of 3.88). This lower relative mean is not surprising, given there were technical problems that prevented students accessing the FRAP™ software, which took nearly three weeks to fix.

Table 7.4: Students’ evaluation of the business internship in semester one: Academic supervision (N=20, Likert 1=strongly disagree, 5=strongly agree)

	Mean	Std Dev	--- Response (%) ---				
			5	4	3	2	1
I was able to meet with my academic supervisor regularly / as required	4.32	0.75	47	37	16		
My academic supervisor provided helpful feedback and direction for the project / work	4.37	0.90	58	26	11	5	
My academic supervisor provided prompt responses to any queries/questions I had (e.g. via email)	4.53	0.62	59	35	6		
My academic supervisor helped me reflect on my workplace learning	4.44	0.92	67	17	11	6	
My academic supervisor was able to assist me with any queries I had with regard to completing and gathering evidence for my portfolio	4.22	0.88	44	38	11	6	
OVERALL - I was satisfied with the quality of supervision provided by my academic supervisor	4.50	0.51	50	50			

The final two sections of the questionnaire related to the supervision and support provided by the academic supervisor and the workplace host. Tables 7.4 and 7.5 show students reported a high level of agreement with the adequacy of the supervision and support received from their academic supervisor and their

workplace host supervisor / mentor. This is indicated by the relatively high mean scores –between 4.22 and 4.60.

Table 7.5: Students’ evaluation of the business internship in semester one: Workplace host supervision (N=20, Likert 1=strongly disagree, 5=strongly agree)

	Mean	Std Dev	--- Response (%) ---				
			5	4	3	2	1
Most of the work I did was at an appropriate level given my prior knowledge, skills and experience	4.45	0.76	55	40		5	
The work/workplace provided a valuable learning experience for me	4.55	0.69	60	30	10		
I was able to meet with my workplace host/mentor regularly/as required	4.60	0.68	70	20	10		
My workplace host/mentor gave helpful feedback and direction for the project/work	4.60	0.60	65	30	5		
During the work period I was able to gain a reasonable understanding of the host/mentor’s work standards / expectations of me	4.55	0.69	65	25	10		
My workplace host/mentor provided prompt responses to any questions I had	4.45	0.83	60	30	5	5	
OVERALL, I was satisfied with the quality of the support/help provided by the host mentor	4.55	0.76	65	30		5	

Analysis of what students said they liked about the course revealed two key themes (the numbers in brackets show number of responses relating to that theme):

- Real / work experience (13)
- Self / skill development (9)

Perhaps unsurprisingly, the most common aspect of what students liked was the opportunity it gave them to gain experience of ‘real’ work, and the related skills and self development this facilitated. Most comments about this were brief: “[It enabled me to] know how to work well in a real organisation”, or “The most important thing is ... working experience from [a] local and formal company”. The importance of using the work experience to improve personal development and individual skills was mentioned in different ways by students, “This course offered me a great opportunity to learn how the real accounting industry is. I learned lots of things from my host organisation”. Another student emphasised the value of learning through work experience compared with their experience of traditional classroom study, “Work for [a] real company. I learn[ed] a lot from

the work. It's not just [about] reading book[s]". For others it was about using this opportunity to enhance their professional development and career prospects, "Kept me thinking on a strategic level and aware of my overall purpose in my job to learn and grow - develop my career".

A number of students connected the work experience to the enhancement of self-management skills, "I like this course because it is an opportunity for me to improve my self-management and [a] great chance to practice ... in [the] real world". Another student related this more explicitly to the portfolio, "Ability to self-manage my portfolio and learning time". For another student, there was recognition that self management gave them the opportunity to "Formulate my own learning - good or bad".

Analysis of student comments on how the course might be improved also revealed two key themes (again the numbers in brackets show number of responses relating to that theme):

- Portfolio requirements (7)
- Learning / mentoring support (4)

Comments relating to the portfolio requirements mostly related to the clarity of the requirements. For example, one student thought we should "make it simpler, [as there was] too much info to read/interpret", while another suggested we "reduce [the] amount of paperwork". A few students focused their comments on how this might be done. For example, by providing "a clear outline of what is expected, perhaps a completed portfolio". While another suggested "Just a better synopsis of assessment items, due dates and grades applicable". For one student, confusion with the requirements appeared to relate to the internal communication between the course coordinator and the academic supervisor, perhaps implying that their supervisor was also not clear on the requirements, "Maybe more clear instructions. Improve connection between academic supervisor and coordinator".

The second theme that emerged from the analysis of comments related to the support provided to the students. This produced different suggestions. A comment by one student indicated that improvements could be made to the academic supervision, "Keep in touch with students [more] often would be great -

to understand what difficulty they have”. Another student suggested that we offer “more learning support”, while another thought that improved communication with the workplace host would help, “I think [Takahe Polytechnic] should talk to [the] organisation. Make sure the organisation truly understands the student situation”. Another felt that improved support might be achieved if we had “specific student mentors from the previous [business internship]”.

7.2.3 Review of final grading

7.2.3.1 Analysis of grades

While the quantitative feedback from the questionnaire survey suggested that students were generally supportive of the course, suggestions for improvements indicated that the portfolio requirements may require some attention. As indicated in the previous section, most comments concerning the portfolio focused on clarity about its requirements. With this in mind, attention was given to whether this may have impacted on the compilation of evidence for their portfolios and the extent to which students self-assessment was confirmed through the validation process. An analysis of the self assessed grades compared to the final grades awarded to the 28 students who completed their internship placements and submitted portfolios showed the following (NB. an outline of how grades are determined is shown in the flowchart on the last page of Appendix K):

- 15 students (54%) who submitted portfolios were required to supply some missing documents following an initial check undertaken by the course coordinator;
- 14 portfolios (50%) submitted for validation had been self-assessed as a Pass, with 14 (50%) self-assessed as a Merit Pass;
- Of the 14 portfolios submitted for a Merit Pass eight were downgraded to a Pass by the validator, a change which was subsequently confirmed by the validation team;
- Of the 14 portfolios submitted for a Pass, three were upgraded by the validator to a Merit Pass (subsequently confirmed by the validation team), three were deemed to have insufficient evidence (also subsequently confirmed by the validation team), and the remaining eight were confirmed as a Pass;

- The three students who were required to submit additional evidence did so and subsequently achieved a Pass;
- Overall, 20 students achieved a Pass (71%) and eight students achieved a Merit Pass (29%). No students had failed to complete the portfolio requirements (and be considered to be ‘not yet competent’);
- In total, 14 of the 28 portfolios submitted (50%) were considered by the validators to have been inaccurately self-assessed by the student.

With over 50% of student portfolios missing one or more documents, this appeared to support students’ earlier comments made in the questionnaire that the portfolio requirements were not clear enough. This may also have contributed to inaccuracies in the self-assessment, although another possible explanation for this proffered by Alice was that students tend to be interested in obtaining the highest possible grade. For example, many students may have submitted their portfolios with a self-assessed Merit Pass, even if they were unsure of whether they had supplied sufficient evidence of meeting the criteria or not, in the hope that they may achieve it. A further factor here is that the portfolio was introduced for the first time with no precedent being available to students on how best to put their portfolio together and how this might be considered subsequently in the validation process. As Alice commented, the student network is very strong and assessment is always something students talk about, especially with other students who took the course in the previous semester. Use of this network may have only served to confuse current students, especially given the issue identified earlier that some old assessment files had been accidentally left on the on-line BlackBoard™ site. The differences between the students’ self assessment and the validators’ assessment, and the subsequent upholding of the validators’ amended grades, are discussed in the following section.

7.2.3.2 The validation process

Alice chose seven experienced academic supervisors to undertake the validation process, all of whom attended a short workshop on the validation process, including clarifying the criteria and evidential requirements for the portfolio. Towards the end of the workshop one supervisor commented that there had been a lot to take in, and felt that it must have been hard for the students to

understand all the requirements. He also added that he was now a lot clearer about what was required, and had he grasped all this earlier in the semester he would have been able to advise his students better. These views appeared to have some support from several other supervisors, and reinforced similar comments made by some students in the questionnaire. A further comment of note was a view expressed by another supervisor who questioned how an independent validator would know whether a student had responded appropriately to feedback they had received from their supervisor. Interestingly, another supervisor quickly responded by highlighting that this was irrelevant and that this “was not the point of the portfolio process”, which is about students producing evidence that they have met the learning outcomes and if they had not taken on board advice given by their supervisor this would be reflected in the quality of their portfolio.

At the end of the meeting, the submitted portfolios were distributed randomly to the ‘validators’, including Alice who decided to validate some portfolios herself. Validators were not given portfolios of students they supervised. A standard ‘feedback form’ was provided to the validators for their use in validating the portfolio (see Appendix L). This form summarises the criteria and evidential requirements for the portfolio (as outlined in the portfolio guidelines) in the form of a checklist. In addition, space is provided on the form for validators to give feedback to students on areas of strength and areas for future development. Completed forms and portfolios are then given to the course coordinator. Where differences are indicated between a student’s self assessed grade and the validator’s grade, the feedback form and the portfolio is brought to the validation team meeting for review and discussion. The form shows where the validator considers insufficient evidence has been provided for a Pass / Merit Pass.

While all validators were invited to participate in the subsequent validation team meeting, it was likely that not all would be able to attend due to other commitments (the period between semester one and two is particularly busy for academics). Four validators attended the meeting, including Alice who acted as the facilitator. In total, there were 10 portfolios requiring review due to differences between the students’ and validators’ assessment. These were distributed by Alice in such a way that each portfolio and the related feedback

form would be reviewed by two members of the validation team. In effect, each pair would review five portfolios. Care was taken to avoid the situation of a validator reviewing a portfolio which they had validated originally. Notes of the validation meeting were taken, and relevant consent forms were signed.

Once all the materials had been reviewed and discussed by the validators, each pair was asked to comment on the conclusion they had come to. This exercise proved to be relatively quick. In all cases, the feedback forms had clearly identified why the original validators believed students' self-assessment was incorrect. It was therefore straightforward to check the relevant section of the portfolio to confirm this. To illustrate, the three students who had submitted for a Pass, but according to the original validators had failed to supply all the required evidence, had done so for different reasons. One had produced a new set of personal and professional learning goals (PPLGs) which was incomplete, with no indications of how this may be achieved or measured. Another failed to update his CV, handing in two identical CV, and the third produced a brief descriptive reflection, which was largely a copy of aspects of two of his weekly journals. For those portfolios that were self-assessed as a Merit Pass but validated as a Pass, most were also relatively straightforward, with the validation team confirming the lack of supporting evidence in the portfolios in all cases. A variety of reasons were offered for this, including: poor linkages made between work experiences and the PPLGs; reflections lacking insights and exploration of values, motivations and so on; and a lack of information to demonstrate outstanding level of competencies. There was a little more discussion on the three portfolios where students had self-assessed as a Pass, but validators had awarded a Merit Pass. In all three cases, the validators' views were upheld. In one case, it was evident from the validator's comments on the form that while the overall value of work was deemed to be outstanding, the forms had indicated that the student performed at a 'very good' level in the four competency areas, but had failed to achieve the two 'outstanding' levels required. The validator had written on the form that he had discussed this with the academic supervisor, who had informed him that the workplace host was quite tough and he believed that the workplace host's view of outstanding was probably taken from what he might expect an experienced employee to demonstrate. It was also evident that the workplace host had subsequently hired the student on a full-time basis, which he believed was more

consistent with an outstanding than Merit Pass. Given the student had provided an excellent account of her experiences through high quality reflections, the validator believed the student deserved a Merit Pass. The two validation team members who read through the portfolio concurred, equally impressed by the reflections and the learning that the student had derived from her experiences.

In summary, the validation team confirmed all the individual validators' judgements that a number of students had failed to produce the evidence required to support their self-assessment. Again, this seemed to suggest that students struggled to understand all aspects of the portfolio's requirements. Aware of this apparent gap in understanding, Alice invited discussion on this among the validation team. For Adam (pseudonym) a contributory factor was that academic supervisors "hadn't made the jump from the old assessment regime to the new one", which he believed had resulted in some academics giving incorrect advice to students during the placement. Carla (pseudonym) agreed, adding that "it probably didn't help that the Blackboard™ site had some of the old assessment materials on them for a few weeks". Graham (pseudonym) also agreed with this, although felt that we shouldn't be surprised that the introduction of a new form of assessment caused some confusion:

This is all new to the students and the academic supervisors ... particularly the concept of developing a portfolio and the responsibility it places on students to gather relevant evidence. I don't think we should be surprised if there was some confusion the first time round.

There was general agreement that the uniqueness of the portfolio, relative to other forms of assessment within the school, was an important factor. Adam thought this was made worse by having so many supervisors, "one of the problems is that there are so many academics involved [in supervision], not all of them will take the time to properly familiarise themselves with the portfolio requirements". Carla agreed, although she felt this raised another issue:

The problem in trying to encourage students to be independent learners is the teachers [supervisors]. Many are probably more bogged down in providing advice on the content [of the work undertaken] than the process of learning ... which is what this course is all about.

Graham suggested that having a smaller team of specialist academic supervisors might resolve this. However, he considered that this was probably unlikely given that, in his experience, internship supervision was secondary to staffing other courses when timetables and workloads were determined. Carla agreed with this position, saying that “the way the workload is allocated nowadays everyone needs a ‘filler’ ... if you need a few extra percent to bring you up [to required teaching hours] then you can add in internship [supervision]”. Alice indicated that she was aware of smaller teams operating similar work-integrated learning models overseas which appeared to work very well, particularly that described by a recent staff visitor from a university in Australia. This university’s internship programme was coordinated and supervised by a much smaller team, with far greater student numbers. However, she acknowledged that a key difference was that this programme ran full-time over a whole year and was therefore a much more substantial component of their degree programme. She indicated that she had tried to get approval from the school’s management team for a smaller team of supervisors in the past, but without success. One of the problems was that the school had considerably fewer resources available to it than the Australian university, and was struggling to manage its current resources and staff workloads in the face of falling enrolment numbers, largely due to the fierce competition from the city’s three universities. She was informed that by using larger numbers of supervisors it helped the school to balance staff workloads, which were stretched across a large number of specialist papers. The School management also held the view that it was valuable for the School to have as many of its staff as possible exposed to the workplace, which would help them to maintain their industry currency and build relevant external relationships. This was deemed to be particularly important given the strategic commitment of the institution to having an applied, real-world focus.

7.2.4 Adjustments to portfolio guidelines and preparatory materials

Immediately following the validators’ meeting, Alice had brief informal discussions with some individual academic supervisors. These discussions seemed to confirm the views expressed at the validators’ team meeting and from the students’ questionnaire feedback, that is, it was apparent that there was confusion about the details of the portfolio requirements. From the feedback received so far

it was apparent that improvements were needed to the way the portfolio requirements were communicated. All the materials and preparatory activities were subsequently reviewed and a number of changes made. These are discussed next.

Revisions were made to the portfolio guidelines, including the addition of a checklist which specified minimum documentation requirements. The revised guidelines were then sent to the institution's learning support centre who specialise in providing assistance to students on all aspects of course learning, particularly assessment. They also were asked to review the guidelines for readability and understanding, taking into account the course has a large number of students who have English as an additional language. As a result of their feedback a revised set of guidelines was produced (see Appendix M). Related changes to other course materials and preparation activities (e.g., study guides, validation feedback form, pre-placement workshops, documents and preparation for academic supervisors) also were made. Alice subsequently reviewed and made changes to the BlackBoard™ site, including removing some remaining old files and re-organising the site to make it more user-friendly. Two student workshops were organised towards the end of the placement period on different days and times in order to maximise attendance. These workshops replaced the single workshop scheduled for week eight of the semester. The workshops were intended to enable students to view examples of different portfolios from semester one, some that received a Pass and some a Merit Pass (with permission from the relevant students), and also to bring in their own portfolios to discuss and gain feedback on them.

Once final academic supervision allocations were made for semester two, Alice organised relevant briefings for supervisors. All but one of the supervisors had supervised students in semester one, and so were relatively experienced (having supervised students in at least three semesters previously). Therefore the briefings largely served to clarify any remaining uncertainties with the portfolio assessment. Alice also would keep in contact with supervisors during the semester. In addition, automated emails sent through BlackBoard™ to students would be copied to all supervisors. Finally, it was agreed that once semester two commenced the researcher would take more of an observer role, on the basis that

the portfolio assessment model needed to operate and be evaluated within the constraints of normal staffing allocations and resources. In effect, I would not be involved directly in the delivery of student workshops, nor in the training of supervisors. However, it is acknowledged that the qualitative nature of the data collection methods employed early in semester two, involving academic supervisors and workplace hosts, resulted in the researcher occasionally clarifying aspects of the portfolio requirements.

7.2.5 Academic supervisors' focus groups: Semester one experiences

While relevant preparation and support for students undertaking the business internship is provided by the course coordinator, the academic supervisors provide an equally important support role by providing advice and guidance as needed. Given the influence of academic supervisors on students, their advice on matters relating to the portfolio inevitably affects how students compile them. The intention of the focus groups was to gain their views on the portfolio assessment in general, and consider how this may affect advice given to students. Particular aspects explored included: supervision experiences; the collaborative assessment process; the grading system; and the introduction of the portfolio as a self-development and self-assessment tool. Supervisors' views are discussed here through the three areas of relevance to this thesis: understanding of portfolio requirements; acceptability of the portfolio model; and the perceived impact of the portfolio on student learning (and how this may inform consequential validity). Note that all names of academic supervisors are pseudonyms.

7.2.5.1 Understanding of the portfolio requirements

It was evident from various comments made through different parts of the three focus group meetings that a number of academic supervisors felt uncertain and confused about the requirements of the portfolio assessment introduced in semester one. A general question asking supervisors about their experiences in semester one elicited an immediate response from Carla, an experienced supervisor.

I don't think I understood what the portfolio itself was, what it was supposed to look like or supposed to contain ... It wasn't really until that final bit when we came to validate the portfolios that the picture came full circle. So I think mostly it's a communication thing ... I don't know whether if that's because we didn't have the opportunities to learn or because we didn't take them, I don't know ... When it began I was probably still in the old model and a bit confused about [the changes] ... I didn't have it clear in my head.

For Ken, the issue was about trying to understand the complexities of the portfolio, which was also a very different form of assessment to that he was used to, "when I first read it for semester one it was like a different language, it was a maze we were having to follow ... the amount of documentation and the complexity of the new assessment". Phillipa also admitted to being confused, relating this to the changed nature of the assessment, particularly in passing more control to the student:

In the previous regime we had a lot more hands on and when it was devolved back to the students to do their portfolio and their self assessment I did somewhat feel that we were moving a little bit of the control or boundaries ... I did find it confusing.

There was also confirmation in one focus group of an earlier comment made by Alice about the importance the student network plays in assessment understanding. Rick's view, endorsed by the other academics in his focus group, was that:

A lot of them [students] were doing [the internship] through the old system ... they got a lot of [incorrect] ideas from their fellow [past] students, but it's a completely different concept. In reality, students tend to tell each other to forget everything that anybody's ever told you, it doesn't apply.

It became apparent that supervisors may have added to students' confusion with portfolio requirements, particularly if students also talked to other students who had completed the business internship under the previous assessment system. Despite these confusions, dialogue towards the end of each focus group suggested that having gone through one semester with the new assessment, supervisors were now much more aware of the requirements and did not believe this would be a major issue in semester two. Cathy's comment that she was "much more comfortable going through it this time" is typical of comments made by the supervisors.

Just prior to the focus group meetings, revised portfolio guidelines had been completed, as discussed above. These copies were available at the meetings for reference if needed (Alice would be following up later to discuss the changes made in more detail). In one focus group, due to the nature of the dialogue, copies were distributed to enable discussion of some of the changes made. Following a brief review of these, there appeared to be support for the changes. Andy highlighted an improvement in relation to evidential requirements for the learning outcomes, “I think the learning outcomes are much clearer, I can’t recall them in this order [in semester one]”. Ken, who had been particularly critical of the complexity of the semester one documentation, especially the portfolio guidelines, seemed to be particularly pleased to see the introduction of a checklist for specifying minimum documentation requirements for the portfolio, asking rhetorically “Where were you [i.e., the checklist] last semester?”

7.2.5.2 Acceptability of the portfolio assessment

The collaborative assessment process is a core activity in the determination of students’ workplace performance and future development needs. As noted in Chapter 6 this process was in operation prior to the introduction of the portfolio assessment. The main change made to the process was that the three parties involved no longer allocated marks to student performance. The emphasis now was on providing students with formative feedback on their performance and related future development. As was previously mentioned, comments made on the feedback forms provided important evidence of achievement for students’ portfolios.

There were mixed and sometimes polarised views on this change expressed in the focus groups. Initial responses to the question of whether removing the marking component was a good or a bad thing, elicited broadly equal support for each. Of the supervisors who were not supportive of the change, most tended to be brief in their comments, summed up by Adam’s view that “they should still be graded, given a mark”. Rick was a little more elaborate, albeit forthright in his views:

I have real strong feelings about that. I think that's the ... main weakness ... After the collaborative assessment I felt disappointed because there was nothing to talk about ... I thought that was a real mistake that a project shouldn't be marked, full stop.

Robin, while feeling initially confused about the process, agreed with Rick, adding that the previous grading system did not necessarily stop useful comments being made. The view that the quantity and quality of comments had not really changed as a result of removing the marks seemed to have a broad consensus in the different groups. Of note, was that at some point in each of the focus groups either a question was asked why this change had been made, or it became clear that some explanation for the change was needed. At appropriate points in the sessions pre-intervention feedback from a number of supervisors over a period of time was tabled. In particular, concern that giving a mark for workplace performance created an issue of fairness for students, because of the variability in: the complexity and level of difficulty of work tasks and projects; workplace standards; workplace host and academic support; and the luck of the draw where students got their placements, and so on. In each group, this generated considerable discussion, largely resulting in an acknowledgement of the unfairness of allocating marks for students' work performance. A number of supervisors, including a number who had earlier expressed support for allocating marks, acknowledged that some workplace hosts did tend to inflate their marks and this influenced the overall marks given. Sam also thought that students sometimes were over-generous in their self-assessment and felt that the move away from allocating marks might help resolve this:

When the collaborative assessment required marks to be given, I usually found that the student and the workplace supervisor tended to be very liberal with the mark and that did not really reflect the true achievement of the student. And that is very well taken care of in this portfolio.

Cathy, who initially expressed reservations about the removal of marks, also felt that the subjective nature of performance judgements would inevitably led to inaccuracies when using such a detailed marking process:

Certainly putting an absolute mark on it is totally subjective and that probably I do agree with the idea of coming back to place reliance more on what people say than the marks they give ... because what's the difference between an 89 or 90, a 65 or 66 ...

on the day what you come up with is subjective ... you may be an easy marker and I may be a hard marker.

Aaron was very supportive of the change and felt that the categories of performance outlined in the guide prompted useful discussion and produced valuable feedback for students:

I think some of the information [in the forms], like categorising people's competencies as outstanding, was useful in generating discussion. The comments they [the academic supervisor and the workplace host] made was a good thing ... so the supporting documentation was really useful [for students] ... At the end of the day, how do you rate a person on a [numeric] scale? You can get better information [without it] and students are going to use that as evidence.

An important aspect of the new process is that the overall outcome of the *value of the work completed* could be challenged later if the student or the academic felt that the workplace hosts' views were unreasonable or unfair. Phillipa, who earlier had expressed support for the previous marking system, was particularly supportive of having a process that involves academic supervisors should the outcome of the collaborative assessment process be challenged:

I think that's a good idea, because as the academic supervisors, we have an overview of the whole process ... Because we're supervising more than one student we get an idea of the level of the position, what it is they're expected to do which the individual student and the individual [workplace] host can't gauge, so I think it's valuable if it is available for us to provide input.

An area of strong support in all the focus groups was the removal of the academic supervisor from validating their own students' portfolios. Ken went as far to say that he was thankful ... that he could "guide them and give them advice without feeling that I was giving them a loaded answer". Sam linked this back to the collaborative assessment process, suggesting that while the role of the supervisor has moved much more towards being a facilitative, mentoring one, they still have an indirect part in the summative assessment:

The thing is you still have to provide a summary of all the discussions at the meeting ... your job is to pull out all the important points from the contributions, that's one form of assessment. It also cuts down a lot of work that was involved in the previous system.

Another important change made in the business internship assessment was the move away from an 11 point grading system to a 3 point system. As with the collaborative assessment process, there was a mixed reaction to this. Given that all other business degree courses use an 11 point system, it was not surprising to hear that initially just over half of the supervisors expressed a preference for the old grading system. The main reason appeared to be a view that the 11 point system better recognises the variability in the quality of student work. Typical of the views expressed opposing the changes to the grading were:

There's heaps of variation [in the quality of the work] and I just kinda think that 'Pass' doesn't give the better middle students ... recognition for what they've done. (Cathy)

In my mind there's a lot of difference between an A+ student and a B+ student, but [in the new system] it could possibly be that those students both get a Merit Pass. [Similarly] a B-student and a C- student could both end up with a Pass. (Phillipa)

Of those supporting the change, Adam highlighted the fact that:

It [a simpler, competency-based assessment] is being used in the professional [body] exams, particularly in the health sector ... at the specialist stage you either pass or fail, you're not given an actual grading.

As with the previous dialogue regarding the collaborative assessment process, it seems that for many supervisors further explanations were needed for the overall grade changes as well. Again, while these were also outlined to supervisors during the preparatory workshops and individual preparation sessions, it may be that given the complexities of the new portfolio assessment many had either not understood the reasons for, and the implications of, moving to an evidence-based self-assessment process, or if they had were not convinced by the rationale given at the time. Again, this necessitated further explanation on what prompted the change to the grading system and how this related to the portfolio's introduction. A response from Rick was typical in expressing surprise with the portfolio's requirements, "where did you get the idea that it [the portfolio] was to provide evidence? Because I completely missed that". Of note, was that three of the five supervisors who earlier in the focus group dialogue had expressed a strong preference for the 11 point grading system, had changed their views by the end of the session:

Because of the variation in lecturer perceptions, in employer [workplace host] perceptions, and in the calibre of the project, etc., that [the three-point grading system] makes a lot of sense to me ... It meets my requirements and I think it's a giant step forward and "I've been an academic supervisor since [the internship] started [in the] first semester and every semester since then, so I think this is a really good step forward. (Rick)

I think it's a good move, particularly the Merit versus the Pass. I think students had to think quite seriously as to whether they were doing more, they were going the extra distance, in terms of applying for that Merit grade, and with my students I think that worked pretty well. (Robin)

I think that perhaps this is a more equitable basis for assessing student performance. I'm amazed to have said that because as a good accountant, without numbers how can you possibly know that? ... I don't believe I said that, I'm going to have to tell you to take that out ... ha, ha. (Cathy)

7.2.5.3 Views of the portfolio assessment's impact on student learning

The portfolio model attempts a more holistic and integrated approach to assessment. Its introduction was intended to encourage students to take greater responsibility for and ownership of their performance, their learning, and their personal and professional development. Different elements of the model attempt to contribute in different ways to students' preparation for work, and their ability and motivation to become lifelong learners and self-regulating professionals. Given the influence academic supervisors have on students' learning, at the end of each focus group they were asked for their views on the portfolio model in relation to its impact on student learning, and the role academic supervision has in contributing to such learning.

Despite some concerns about the clarity of the requirements and the move away from the standard 11 point grading system, the overall views expressed of the portfolio's introduction were supportive. Most comments from the supervisors were about the portfolio benefitting student learning:

What I liked about it was how the students can reflect on their pre-imposed CV and [how their experiences inform] their [new] CV – this is where I am at the moment, okay three months down the track I've [completed] the project, [so] what have I learned about myself and is this going to help my future development, so professionally and personally I think that's a good thing. (Alan)

I quite like the portfolio, I think it's a good way of getting an overview of what the students have [learned] and you certainly see this from week one right through to the end with the material [they produce] ... because they've got to set up their learning journals and they're basically [producing] evidence of work throughout. (Robin)

A number of comments were made relating to the impact of academic supervision on student learning. In particular, the academics felt that supervision was related to how much each of the two parties put into the relationship:

Well it's a two-way thing. It's how much the student is asking of the supervisor so you can put quite a lot of time into it and also perhaps how demanding the academic supervisor is of the student, to make them shape up and perform. I think the role is quite important and I quite enjoy the role. (Robin)

Most comments on the portfolio's impact on learning related specifically to the importance of the weekly learning journals. These were seen by many supervisors as a key to students' learning and growth. First, they demonstrate how each student's learning journey is different:

Some students have done exceptionally well and it's amazing the amount of output they produce under very restricted constrained circumstances ... For one student his learning journal was not just ordinary recording of things, it was comprehensive, well done, on time every time he came to meet with me. Others, not so good, but still they fall into place over the semester, [they] start off with something and then at the end you have a different student and that's the idea I think. (Sam)

Second, many academics commented on how the learning journals provide the basis for the dialogue with the student, particularly in helping students to maximise their learning. For Robin, "they [learning journals] were a real insight into what was happening and we had an excellent relationship backwards and forwards in terms of feedback". Phillipa expanded on this, highlighting the learning journals value in providing a mechanism for supervisors to guide students and in students' learning development during the placement:

Sometimes the initial [learning journals] are not reflective and this is where the value is of either meeting with them face to face or emailing back with your comments because you can say "yes, it's fantastic, you've told me what you have done, but how did you feel about it" or "what did you learn from making that

mistake” or whatever. We’re dealing with students who are reasonably mature by the time they get to do [the internship], so they take that onboard. Perhaps the first one or two [learning journals] are not reflective, but after a bit of a reminder [they soon change].

Some supervisors provided comment on the role that workplace hosts had during the placement period. Cathy saw a distinction between academic supervision and workplace host supervision:

The quality of the placement depends on the individual [workplace host] supervisor ... and the ability of that person to supervise the student throughout the three month period of the placement. [Because of that I see] my role is purely to guide the student in terms of achieving the best outcome. I look at it more from a learning outcome rather than from a technical outcome, because I think that the technical and work outcome is the responsibility of the company.

Alan also saw this separation of roles as being important, with the academic providing support to enable the student to complete the course (through meeting the requirements of the portfolio):

It’s two different things, you’re relying on the [host sponsor] to give them the technical skills about the project itself and we’re really the mentors giving them the support on how to complete the course.

Rick considered this to be a little more complex, with a need for the academic supervisor to have sufficient technical knowledge of the work project and tasks required in order to ensure the placement provides a suitable learning opportunity for the student:

In some cases the project is not well thought out by the employer [workplace host]. You need [academic] supervisors who really can talk to the employer [workplace host] on their level and then talk to the student on their level and make sure that there’s reasonable communication both ways.

Related to these comments was the issue raised at the validation meeting (outlined in the previous section) of whether having a smaller specialist team of academic supervisors would improve the overall quality of supervision and in turn improve the quality of learning that students derive from their placement. Rick was in no doubt that this would be a “giant step forward. You don’t just have

anyone teaching a course, there's a skill level that goes with it". Cathy concurred and elaborated on this:

Just because you do well in the [discipline] subject doesn't mean you are a good teacher, just because you are a good teacher does not mean you are a good mentor. There are some people in this building who should never ever be [internship] supervisors.

7.2.6 Workplace host evaluation: Questionnaire response

A questionnaire was administered to workplace hosts at the end of semester one (see Appendix C). Details of the instrument were outlined in Chapter 5. The questionnaire asked workplace hosts to indicate their level of agreement with a number of statements. A five point Likert scale was used, ranging from 1 (strongly disagree) to 5 (strongly agree). These statements were incorporated into three areas of evaluation: students' work/project; the education institution's organisation of the internship, communication and support; and the collaborative assessment of student performance and development. The questionnaire also invited workplace hosts to give reasons or comments for their numeric response to each question. The final part of the questionnaire invited workplace hosts to provide overall comments on what they liked about the internship course, and how it might be improved.

In total, 22 of the 28 workplace hosts who provided placements for students in semester one completed the questionnaire, providing a response rate of 79%. The data obtained from the survey were analysed using standard statistical tools on Microsoft Excel™. As mentioned earlier, it is acknowledged that while the data are ordinal an assumption cannot be made that the data intervals are equidistant. However, for the purpose of providing a descriptive overview, estimated means and standard deviations have been used to show the findings for each section of the questionnaire. In addition, the spread of responses is provided for each statement, rounded to the nearest one percent. The findings are shown here in Tables 7.6 to 7.8.

The data in Table 7.6 indicates that workplace hosts were generally in agreement with the view that the benefits of the student placement outweighed any costs incurred. Of note, is the relatively high level of support shown by

workplace hosts for taking another student at some future date (a mean score of 4.32 and 92% either agreeing or strongly agreeing with the statement). This appears to indicate that almost all workplace hosts believe that the net benefit of hosting students is sufficient to take more students in the future. Overall the workplace hosts were satisfied with the work completed by their internship students (mean score of 4.05). This is consistent with the grading of the portfolios, in which all students produced sufficient evidence of meeting work performance requirements, that is, the collaborative assessment forms showed that the value of work completed was at a minimum satisfactory level.

Table 7.6: Workplace hosts' evaluation of the business internship in semester one: Students' work/project (N=20, Likert 1=strongly disagree, 5=strongly agree)

	Mean	Std Dev	--- Response (%) ---				
			5	4	3	2	1
The benefits of the student placement outweighed any costs incurred (e.g. actual payments, staff time spent mentoring etc, extra resources)	3.95	0.86	29	43	24	5	
We would be happy to take another student at some future date (if there is a suitable project available)	4.32	0.78	46	46	5	5	
OVERALL - I was satisfied with the work completed by the student	4.05	0.79	27	55	14	5	

It is notable that one workplace host (5%) scored a 2 on the questionnaire, indicating that they were rather less than satisfied with their student's performance. When asked about this, the workplace host (Roger, a pseudonym) stated:

Overall, I was disappointed with the work produced. The student was willing, but lacked the skills and knowledge to complete the project as we would have liked. Given the confusion with the academic supervision, and the late changes made, I had a certain amount of sympathy with the student and agreed to the minimum satisfactory performance level.

The confusion referred to concerned the temporary allocation of an academic supervisor who specialised in human resource management, rather than accountancy (which was the nature of the work being undertaken by the student). In discussing this with Alice, it appeared that the original accountancy academic supervisor allocated was not initially available due to ill health. A replacement within the accountancy area was not available and a temporary supervisor from human resource management was eventually allocated by the School Manager

responsible (during week five). About half-way through the placement (week seven or eight) the original accountancy supervisor returned. Unfortunately for the student and workplace host this created some confusion and uncertainty during the important early stages of the work project.

The second part of the questionnaire focused on the workplace hosts' views of Takahe Polytechnic's organisation, communication and support. As can be seen from Table 7.7, workplace hosts showed a broad level of agreement with all three statements given. Perhaps not surprisingly the workplace host (Roger), who identified the confusion with academic supervision earlier, gave a lower score given for the first two statements (with a score of 2).

Table 7.7: Workplace hosts' evaluation of the business internship in semester one: Takahe's organisation, communication and support (N=20, Likert 1=strongly disagree, 5=strongly agree)

	Mean	Std Dev	--- Response (%) ---				
			5	4	3	2	1
All necessary information was clearly communicated to me by Takahe	3.95	0.90	32	36	27	5	
The support provided to the student by Takahe staff was beneficial to the project	3.94	0.87	28	44	22	6	
OVERALL, I was satisfied with the quality of support and organisation provided by Takahe staff	4.26	0.65	37	53	11		

The third part of the questionnaire focused on the collaborative assessment process (Table 7.8). Again, it can be seen that most workplace hosts (between 76% and 92%) either agreed or strongly agreed with all statements provided. With means scores of four or above, there appears to be good support from workplace hosts for this part of the portfolio assessment process. It should be noted that there were only three workplace hosts who had previously hosted students, and workplace hosts were not asked for their comments on the removal of grades from this process.

Table 7.8: Workplace hosts' evaluation of the business internship in semester one: Collaborative assessment of student performance and development (N=20, Likert 1=strongly disagree, 5=strongly agree)

	Mean	Std Dev	--- Response (%) ---				
			5	4	3	2	1
The requirements of the collaborative assessment of the student's performance and development were clearly communicated to me	4.05	0.74	29	47	24		
Involving the three parties in face-to-face assessment of student performance and development was a valuable process	4.24	0.83	48	29	24		
The Collaborative Assessment Guide was clear and helpful	4.05	0.65	23	59	18		
The performance and competency statements in the Collaborative Assessment Guide are appropriate and fair	4.00	0.67	21	58	21		
OVERALL, I was satisfied with the process used to assess the student's performance and development needs	4.00	0.55	14	71	14		

Finally, workplace hosts were asked what they liked about the internship course and how they thought it could be improved. Analysis of what workplace hosts liked about the course revealed three themes (the numbers in brackets show number of responses relating to that theme):

- Meeting the organisation's work / project needs (7);
- Contributes to students' development and work experience (8); and
- Collaborative assessment process (4).

Not surprisingly, many workplace hosts saw the course as providing them with an additional resource to complete relevant work. Typical of comments is that the course is, "really valuable. [It was a] great opportunity for firms like us to have somebody available to pick up tasks that otherwise may not happen" (workplace host H).

For workplace host T, who had also hosted students previously, it was more about the impact that new migrant students had had on himself and his staff:

The ability to have young or enthusiastic resources on the premises ... The rest of the team enjoyed interacting with the students and it opened their eyes to the possibility of employing more "new kiwis". They were extremely diligent and hard working and I would not hesitate in employing any of them if the chance arose ... one did in fact get a job with us. They were a credit to [Takahe].

A few workplace hosts saw the course benefiting both the workplace host and the student, “Structuring projects that benefit work needs and study needs is very beneficial” (workplace host L). For workplace host F it was more about the value both parties derive after the student has graduated, “it means when they finish their degree they do not come into work 'fresh', they are more productive”. The benefit to the students was also raised by a number of other workplace hosts. These benefits were largely seen in relation to the value of the work experience to students prior to completing their studies. As with the feedback provided by students themselves, a number of workplace hosts mentioned the practical, real world nature of the workplace. For example, workplace host Q felt that the workplace exposure gave students “a glimpse into real world environments”. Other workplace hosts were more specific saying the work experience helped give students, “the ability to connect theory to real practice” and that it “enhances their communication skills” (workplace host K). Another workplace host (U) commented on the student’s development, which was related to good workplace host supervision:

Although fairly intensive from a supervision point-of-view, it was nice seeing the student develop from a theoretical knowledge to a practical awareness. To get real value from the programme it was necessary to put a lot [of] time and work [into the] planning and supervision.

The final aspect of what workplace hosts liked about the course was the collaborative assessment process. Workplace host I stated that he “really liked the face-to-face meetings at the beginning and end. I wasn't really expecting that”. Likewise, workplace host S thought it was “a really useful programme. It was good to round-off the project with the three-way meeting. I think the student would have got a lot of value from that” and workplace host V thought that “the assessment process at the end was really good. The competency guide provided a really good basis for the discussions”.

When asked to comment on how the course could be improved, 7 of the 22 workplace hosts said they could not think of any improvements, and instead commented positively about the course. Of the comments made on areas for improvement two themes emerged (the numbers in brackets show number of responses relating to that theme):

- Addressing knowledge and skill deficiencies in students (6); and

- Improving communication between Takahe and the workplace host (6).

The most common issue identified by those workplace hosts who commented, was on students' knowledge and skill deficiencies and their inability to bridge the gap between theoretical knowledge and concepts learned in the classroom and the knowledge required in workplace practice. Workplace host O commented that the "student didn't have practical knowledge. The theoretical knowledge was there, but there is a big difference between work realities and tertiary education". Workplace host M was concerned with the student's gap in knowledge, and also their inability to connect theoretical knowledge to the contextual nature of the organisation:

Ensuring students have a basic knowledge of accounting, as well as a basic knowledge of a manufacturing organisation if they are undertaking a placement here. The student struggled to connect theory to a manufacturing context.

The influence of the setting or context on the nature of the placement was also noted by workplace host J. In this case, the student was an international student who had achieved high grades in other courses within the degree. However, the nature of the work placement required a high level of language ability:

We would probably not employ the student as the language skills, especially oral, were not at a level required in an area like ours [recruitment and consultancy]. The student was great, but the language is a major area for development.

The final area identified by workplace hosts for improvement was in the communication between Takahe and the workplace host. As workplace host L noted: "It would be good to have more interaction with Takahe staff". This interaction he felt was needed prior to the placement commencing, "Takahe [should] ensure that the needs of the business project are in tune with the needs of the Takahe course requirements". For another workplace host (R), it was about getting a better understanding of what the course was about:

More communication from Takahe would have been helpful. Especially an orientation about what the education course is about. I only saw the Takahe staff person once at the beginning, but I wasn't really clear about what was involved.

For workplace host T, the communication was lacking at the end of the placement, which she saw as an opportunity to build future relationships, “Strengthen relationships with some key corporate providers like the [ABC] Group, and maintain them so that you have a continuous and steady placement opportunity”. For workplace host P, the relationships were best built with larger organisations, to maximise the learning for students, “it would be better for students to work in a larger organisation so that they can get the support they need”.

In summary, the quantitative feedback from the questionnaire survey indicated that workplace hosts were satisfied with relevant aspects of the course and the collaborative assessment process. However, qualitative comments identified some areas for improvement relating to students’ skills deficiencies and the communication with Takahe staff. This feedback was subsequently discussed with Alice. It was apparent that the issue of skills’ deficiencies had been raised by some workplace hosts in the past, particularly students’ oral and written communication skills, and students’ ability to apply technical skills in a work-contextualised setting. Alice felt this was a much broader programme issue, which she had raised previously with the business degree’s programme committee. She anticipated that this would be considered again as part of a programme curricula review planned to commence at the end of the year. It was apparent that the degree’s ‘graduate profile’ and related competencies would be a key aspect of this review. We agreed that it would be valuable for the views expressed by these workplace hosts to be fed back to the programme committee as part of the portfolio assessment’s evaluation planned for the end of the year (see Section 7.3.7).

With regard to the communication issue identifying that the business project needs to be in tune with the needs of the Takahe course requirements, Alice confirmed that all work objectives must be agreed between the workplace host and the particular business degree major coordinator before a ‘learning agreement’ is signed and before the placement commences (as noted in Chapter 6). However, she indicated that she was aware that occasionally work placements are secured quite late by students, which sometimes results in the work commencing before the full details of the work objectives have been finalised and

agreed with workplace hosts. She indicated that she would discuss this with the five senior academic staff members involved in this process, and ensure work projects did not commence until the placement agreement is signed.

Alice acknowledged that workplace hosts are sometimes not always fully aware of what the business internship is about. This is despite relevant information ‘packs’ being given to each academic supervisor for them to hand to workplace hosts as part of their internship orientation discussions. She was aware that these orientations were not always done well, which she felt was a symptom of having so many academic supervisors involved in a semester, and the inevitable variability in the quality of communication this creates. She also felt that the large numbers of academics leads to similar variability in effectiveness in developing on-going relationships with workplace hosts. We concurred that it would be also valuable to raise these communication issues with the programme committee as part of the portfolio’s evaluation (see Section 7.3.7).

7.3 Stakeholder feedback: Semester two

As was outlined in Chapter 5 the main, although not exclusive, focus of the data collected in semester two was on obtaining stakeholder views on the benefits of the portfolio assessment model for student learning. Both quantitative and qualitative data were collected from students in the form of a survey, a sample selection of six portfolios, and six individual interviews. An analysis of student grades was also undertaken by comparing students’ self assessment with validators’ assessment. These results were also compared with those obtained in semester one. Qualitative data were collected from a focus group of academics involved in a validators’ team meeting. A formal interview was also conducted with the course coordinator, Alice. Finally, details of the evaluation presentation to the business degree programme committee, together with their initial feedback, are provided. No further data was collected directly from workplace hosts in semester two.

7.3.1 Student evaluation: Questionnaire response

A questionnaire was administered to students at the end of their placement (see Appendix D). The questionnaire was structured in the same way as that used at the end of semester one (see Section 7.2.2), with the same five point Likert scale. All sections of the questionnaire were the same as those used in semester one (see Appendix A), except for the section 'organisation of the course'. Given the relatively high levels of satisfaction expressed with the statements in this section in semester one, this section was amended in semester two to make it more succinct. Rather than have a separate statement for each of the four pre-placement preparatory workshops these were consolidated into a single statement. Similarly, a single consolidated statement replaced the several individual statements used in semester one regarding the on-line (BlackBoard™) self-study guides. The final change was the inclusion of a single statement on the two workshops held during the semester. These workshops were introduced to enable students to view examples of portfolios produced in the previous semester and also to discuss and clarify any remaining matters affecting the production of their own portfolios.

The questionnaire was administered to students in person immediately following the submission of their portfolios, as well as by email. Given that most of the students had indicated that they would be submitting their portfolios in hard copy, students were encouraged to hand-in their portfolios at the School reception area on or prior to the submission date. Upon handing in their portfolios, students were given the questionnaire to complete. Some students, who had commenced their placement late or had been unable to complete their placement as scheduled because of factors beyond their control, were given extensions for portfolio completion beyond the hand-in date. These students were sent questionnaires by email. All students given the questionnaire were provided with an information sheet specifying the purpose of the survey and an assurance that all responses would be treated in confidence.

In total, 33 students completed the business internship in semester two and all were given questionnaires to complete. Of these, 20 were completed and returned, providing a response rate of 61%. As with semester one, the data

obtained from the completed questionnaires were analysed using standard statistical tools on Microsoft Excel™, with estimated means and standard deviations used to provide a descriptive overview of the findings for each section of the questionnaire. In addition, the spread of responses is provided for each statement, rounded to the nearest one percent. The findings are shown in Tables 7.9 to 7.13. While space was provided for students to give reasons or comments for their numeric response, very few comments were made, therefore these have not been included in the analysis.

Table 7.9 shows means for all responses to statements relating to the value of the course are above four, with at least 90% of students agreeing or strongly agreeing with each of the statements given. This suggests that students feel they do gain value from the course in a number of ways. Of particular note is that no students disagreed or strongly disagreed with any of the statements. Furthermore, six of the seven responses had higher mean scores than semester one (see Table 7.2).

Table 7.9: Students' evaluation of the business internship in semester two: Value of the course (N=20, Likert 1=strongly disagree, 5=strongly agree)

	Mean	Std Dev	--- Response (%) ---				
			5	4	3	2	1
The course has been demanding and stimulating	4.50	0.61	55	40	5		
The course has extended my present knowledge and skills	4.45	0.69	55	35	10		
The course has assisted my <i>professional</i> development	4.70	0.47	70	30			
The course has assisted my <i>personal</i> development	4.35	0.59	40	55	5		
The course has improved my knowledge of the workplace and host expectations	4.55	0.51	55	45			
My self confidence has improved	4.25	0.64	35	55	10		
Overall, this course has been of value to me	4.60	0.50	60	40			

As occurred in semester one, all means for responses to statements relating to the assessment of the course are four or above, indicating that students are satisfied with the portfolio assessment method employed (Table 7.10). Again, the strongest support was given for the last four statements relating to the collaborative assessment process, with at least 94% of the students either agreeing or strongly agreeing with each of these statements. These responses appear to

indicate that students felt well prepared for the collaborative assessment meeting with the workplace host and academic supervisor and valued the process.

Table 7.10: Students' evaluation of business internship in semester two: Assessment of the course (N=20, Likert 1=strongly disagree, 5=strongly agree)

	Mean	Std Dev	--- Response (%) ---				
			5	4	3	2	1
As a result of completing the portfolio, I feel more confident self-assessing my competencies	4.10	0.55	20	70	10		
As a result of completing the portfolio, I feel more confident self-assessing my work performance	4.25	0.64	35	55	10		
As a result of completing the portfolio, I am more able to understand myself and the way that I learn	4.15	0.67	30	55	15		
I intend to use elements of the portfolio for my personal and/or professional development in the future	4.40	0.68	50	40	10		
The portfolio's self assessment process was a valuable learning experience	4.30	0.73	45	40	15		
I understood what I needed to do in order to gain a Pass Grade	4.45	0.76	60	25	15		
I understood what I needed to do in order to gain a Merit Pass Grade	4.20	0.95	50	25	20	5	
Using a competency-based grading system (Merit Pass, Pass etc.) is appropriate in this type of course	4.00	1.03	35	45	5	15	
Overall, the portfolio assessment process was appropriate and fair	4.25	0.79	40	50	5	5	
The collaborative assessment guide was helpful in outlining expected workplace competencies	4.42	0.61	47	47	5		
Prior to the three-way meeting I had collected relevant and sufficient evidence to support my self-assessment	4.47	0.61	53	42	5		
Prior to the three-way meeting I felt confident that my self-assessment would be confirmed by the host sponsor and academic supervisor	4.47	0.61	53	42	5		
The feedback I received at the Collaborative Assessment meeting was valuable and fair	4.68	0.48	68	32			

Table 7.11 shows students' views regarding the 'organisation of the course'. As with the previous semester, and in common with the previous two sections of the questionnaire (Tables 7.9 and 7.10), all statements had a mean score above four, ranging from 4.10 to 4.50. At least 85% of students either agreed or strongly agreed with the statements provided, indicating that students felt they were adequately prepared for the course and its assessment.

Table 7.11: Students' evaluation of the business internship in semester two: Organisation of the course (N=20, Likert 1=strongly disagree, 5=strongly agree)

	Mean	Std Dev	--- Response (%) ---				
			5	4	3	2	1
All necessary course information was clearly communicated to me	4.10	0.79	30	55	10	5	
I was satisfied with the service provided to me by the Course Coordinator	4.45	0.69	55	35	10		
My work placement was undertaken in an appropriate organisation	4.42	0.51	42	58			
The four preparation workshops/classes held at the beginning of the semester were helpful	4.37	0.47	37	63			
The two workshops/classes held during the semester (to share experiences) were helpful	4.50	0.52	50	50			
The self study guides available on BlackBoard™ were helpful	4.23	0.83	43	43	10	5	
The weekly email tips sent by the Course Coordinator were helpful	4.30	0.80	45	45	5	5	
The documents and materials posted on BlackBoard™ were helpful	4.25	0.64	35	55	10		
OVERALL, I was satisfied with the BlackBoard™ /On-line support provided	4.30	0.66	40	50	10		

The final two sections of the questionnaire relate to the supervision and support provided by the academic supervisor and the workplace host. As was the case in semester one students reported a high level of satisfaction with the supervision and support received from their academic supervisor and their workplace host supervisor/mentor (see Tables 7.12 & 7.13). Again, high mean scores were evident ranging between 4.32 and 4.63.

Table 7.12: Students' evaluation of business internship in semester two: Academic supervision (N=20, Likert 1=strongly disagree, 5=strongly agree)

	Mean	Std Dev	--- Response (%) ---				
			5	4	3	2	1
I was able to meet with my academic supervisor regularly / as required	4.63	0.60	68	26	5		
My academic supervisor provided helpful feedback and direction for the project / work	4.58	0.77	63	32		5	
My academic supervisor provided prompt responses to any queries/questions I had (e.g. via email)	4.58	0.61	63	32	5		
My academic supervisor helped me reflect on my workplace learning	4.47	0.70	58	32	11		
My academic supervisor was able to assist me with any queries I had with regard to completing and gathering evidence for my portfolio	4.32	0.89	53	32	11	5	
OVERALL - I was satisfied with the quality of supervision provided by my academic supervisor	4.47	0.70	58	32	11		

Table 7.13: Students' evaluation of the business internship in semester two: Workplace host supervision (N=20, Likert 1=strongly disagree, 5=strongly agree)

	Mean	Std Dev	--- Response (%) ---				
			5	4	3	2	1
Most of the work I did was at an appropriate level given my prior knowledge, skills and experience	4.32	0.67	42	47	11		
The work/workplace provided a valuable learning experience for me	4.47	0.61	53	42	5		
I was able to meet with my workplace host/mentor regularly / as required	4.58	0.61	63	32	5		
My workplace host/mentor gave helpful feedback and direction for the project/work	4.53	0.61	58	37	5		
During the work period I was able to gain a reasonable understanding of the host/mentor's work standards / expectations of me	4.47	0.51	47	53			
My workplace host/mentor provided prompt responses to any questions I had	4.42	0.61	47	47	5		
OVERALL, I was satisfied with the quality of the support / help provided by the host mentor	4.63	0.50	63	37			

In the final part of the questionnaire students were asked to provide overall comments on the course. First they were asked to respond to the question, “What did you like about this course?” Analysis of students’ responses to this question revealed the same two themes that were identified in semester one (the numbers in brackets show number of responses relating to that theme):

- Real / work experience (11)
- Self / skill development (9)

While students in semester two made similar comments to their counterparts in semester one on the value they derived from the work experience, differences emerged in relation to comments made on self and skill development. While in semester one comments made placed emphasis on skill development, interestingly in semester two there was more of an emphasis on self-awareness and self-development. For some students the course enabled them to identify their weaknesses, “Helped me to recognise my weaknesses and how to improve on them in the future”. Others focused on the benefit of the portfolio to their learning, “[I was] able to manage my learning through the portfolio”, and for another student the portfolio “remind[ed] me of what I have achieved. The learning journal made me think about myself”.

Students were also asked for their response to the question “How do you think this course could be improved? Analysis of student responses to this

question revealed no strong themes. Four responses identified that no improvements were needed to the course, either explicitly or implicitly (through a non-response). Three comments were made in relation to improving the clarity and structure of the BlackBoard™ on-line learning site, and three comments related to different ways that students could be better supported, that is, “more classes”, “ more support from academics before we go to the organisation”, and “more communication with students during the placement”. Finally, three students commented on the need to expand the course so that more time was spent in the workplace, with one student suggesting that the course be a “whole year long”.

7.3.2 Student interviews

Six students were selected for interview to discuss their views of the portfolio assessment. Details of the selection process were outlined in Chapter 5. Having acquired initial feedback from students through the completed questionnaires, as discussed in the previous section, the purpose of the interviews was to explore students’ views of the portfolio assessment model in more detail, with particular attention given to the consequences of the portfolio on their learning, and the value they attribute to the different components involved. A brief background on each student follows. In each case, pseudonyms have been used for confidentiality purposes. Unless otherwise stated, the students have no previous business work experience and English is not their native (first) language.

Ri was a male, international student from China. He was 24 years of age and his business major is in management. He undertook his placement in a medium-sized, plastics manufacturing business. His work involved assisting with the development of various analytical models related to the operational management of the manufacturing process. He achieved a Pass grade for his portfolio.

Aija was a female, local student, who originates from Samoa. She was 45 years of age and her study major is in management. English was Aija’s first language and she had a corporate background, having worked in a human resources department for a large New Zealand organisation 20 years previously.

She left work to raise a family, and upon graduation was intending to seek full-time employment in the same field. Her placement was undertaken in a Pacific Island community organisation and she carried out a variety of generalised activities related to human resource management. Aija achieved a Pass grade for her portfolio.

Ying was a female, local student, who originated from China. She was 25 years of age and her study major is in marketing. Ying had previous part-time work experience, but this was not related to her business studies. She undertook her placement in a small business that sells specialist software. Her work project involved developing the company's website in order to help maximise growth of the business. Ying achieved a Merit Pass grade for her portfolio.

Ashmita was a female, international student from Fiji. She was 23 years of age and her study major is in finance. While English was not her first language, her English (oral and written) skills were excellent due to spending several years at a secondary school in New Zealand. Her business major was finance and she undertook her placement in a long established finance company. Her work objectives included managing the back office functions. She has no prior work experience. Ashmita received a Pass grade for her portfolio.

Mahesh was a male, local student who originated from Sri Lanka. He was 37 years of age and his study major is accountancy. He had prior work experience in a variety of customer relations and retail-sector work in Sri Lanka. He was undertaking a business degree to retrain in accountancy. His placement was undertaken in a small chartered accountancy firm, where he did a variety of accounting related activities. Mahesh received a Pass grade for his portfolio.

Jiao was a female, local student who originated from China. She was 23 years of age and her study major is information systems. She undertook her placement in a law firm, where she carried out a variety of activities assisting in the development of a new database. Jiao achieved a Merit Pass grade for her portfolio.

7.3.2.1 *Building the portfolio*

The portfolio was viewed by all the students as helping their learning. A particular benefit of the portfolio was the sense of achievement students gained from its completion:

I had to really think about what my strengths were and the portfolio really highlighted those for me, particularly to be able to see it visually [in writing]. I felt it gave me a sense of achievement, it was there and I could look at it and think wow did I do all this? I think because we're forced to give evidence of what we had done and [then] to see that in the portfolio is very good ... it is the demonstration of your skills and it's certainly something I will carry on and do to improve myself, to have a portfolio. (Aija)

While compiling and then sorting the evidence for the portfolio was seen as straightforward, it also was considered to be valuable:

For me it was very easy because at the beginning of the internship [we were told to] keep everything at work, so if the work was done we have to have some sort of document or electronic record. But I did have too much evidence so I did have to take some out. I have an index page almost for every single part of the job, the achievements, the different sections ... so I try to summarise what I have done, what I have done good, what I have done bad and yeah it was a good experience for myself as well ... I try to pick on different areas, collect them and then go through them and see which one's [are] useful and which one's [are] not. (Ying)

Students were also conscious that compiling the portfolio involved self-assessment:

[The placement] was really positive and I learned a lot, it was all a learning experience. Every day I went in and I learnt something and putting together the portfolio was a learning experience too because I had to assess myself and make sure that I was meeting the criteria. (Ashmita)

Being able to look back at what you have written in the portfolio also served to highlight important aspects of students' learning. For Aija this learning related to a major report he had to write for the company on completion of his work project:

[The portfolio] helped remind me what I learned at work, particularly having to write about it. [I realised that] if you want good results keep checking, fine tuning ... always important to

review the report several times to make sure it is the best you can do. [It is] different from class assignments, where you can make up marks in the next assignment or exam. You only get one chance in the real world to get it right ... you'd be in big trouble if you didn't.

7.3.2.2 Collaborative assessment of work performance

Having to self-assess your performance and then talk about this with the host workplace host and academic supervisor was a challenge for some students:

I found it a bit challenging because ... you have to say what you think so it's not comfortable, you know, you assess yourself. So that was a problem for me, it's easier to assess someone [else] than assess yourself. But having said that it's very useful because [I found] the [competency guide] form very useful ... I thought through each [statement], for example, presentation, client focus etc. and then put my point. (Mahesh)

I think lots of people from the same background as me, as a trainee with English as a second language, [have] difficulties communicating with people ... A lot of Chinese people are shy when they communicate and I think I [had to] change a lot when I came to NZ ... So yeah ... it's more important the way I think about myself. So I think if you can tell the students that they need to speak up and don't be afraid to make mistakes that would be helpful. A lot of the Chinese students are too scared of making mistakes and that's really, really bad. (Ying)

Despite these challenges, students did not find many surprises at the meeting regarding what others thought about their performance. This was largely due to their on-going contact with the host throughout the placement:

Because the host supervisor and myself kept in touch frequently throughout the process I thought that helped ... I was really conscious of ways of ensuring that I was meeting the host's expectations so I was always checking, not on a daily basis, but on a regular basis. So by the time you got to the collaborative assessment there were no surprises, because we'd kinda covered everything, we were checking things off as we went. (Aija)

I didn't really prepare too much evidence [for the meeting] really, [because] my manager knows what I've done. To be clear I really like to report to him what I have done [regularly]. Every Monday I have a meeting and in the meetings we go through the questions together, [the] targets. So he felt quite happy about that. But the Monday meeting[s] [were] not so much feedback it's [more] like a review after the result, what I've achieved, and most of the time I'm setting targets and [we

can] see what we've done good and what we've done bad.
(Ying)

The lack of surprise of others' views of their performance at the meeting was also related to students taking responsibility for gathering prior evidence of their performance:

I thought it [gathering evidence] was good in a way because it really made you focus. It wasn't just hearsay; you had the evidence right there. It was challenging to think "oh I've got to get all this stuff together", but once you had it all together it made it easy for all parties. Nobody could dispute it, because you had the evidence there. (Aija)

Students also valued the feedback they gained on their competencies from host workplace hosts. For Jiao, this feedback was given on an on-going basis:

[The collaborative assessment meeting] just confirm[ed] what I already knew, because I [had regular] conversations with my workplace supervisor during the placement ... She told me lots of thing about my [competencies] and [how] to improve in the workplace, [how] to look at people communicate, yeah she was really helpful.

While there were few surprises at the meeting, the feedback given was still valued by the students:

I had the opportunity to get feedback from my academic supervisor, my host supervisor, and from the managing director. They [host and managing director] discussed [my performance] when completing the forms and I found a lot of comments useful for me in future. What [they] said I have also mentioned [in my self-assessment] so it's not an issue because I was expecting that as well ... But certain [performance] areas I thought I was successful on she [my host supervisor] thought more so. So [coming from] someone else that was a good point. (Mahesh)

The collaborative assessment forms and guide were considered to have been helpful both prior to and during the performance review process:

I think [the collaborative assessment process] was very good. In fact I was very impressed with that part of it. Throughout the whole process being reminded of what they [the competency statements] were started to give me clarity of what my strengths were and what my weaknesses were ... When we came to the meeting it was so helpful because we were all on the same page. When I sent [the forms and guide] through to my host supervisor she said oh this is really cool ... Having all the forms at the back with the explanations [competency statements] helped – I know for me it was very good. (Aija)

7.3.2.3 Reflecting on placement experiences

An important component of the portfolio is the need for students to write about what they have learned by reflecting upon their experience at the end of their placement. For Mahesh, the weekly learning journals were particularly helpful in being able to do this:

What happened for the first two or three weeks I didn't really get it [reflection], what it really meant, but ... then you [realise] the usefulness [of the weekly learning journal] and how it will be helpful in the final compilation. The three components [of the learning journal] - what happened, what you feel, what you learn - that was useful when you come back to it [at the end of the placement] ... [When] you start writing your end [of placement] reflections ... you realise it [the weekly journal] is very useful ... You learn at that point, "I should have done it this way, a better way".

Ying made the observation that you have to reflect first before you start to write, and how the weekly learning journals and other aspects of the portfolio evidence help you to do this:

I think that's [reflecting] very important and it's very helpful. But I actually think that in order to write a good reflection essay you have to reflect before you start writing it, so [the weekly journals] just helped me to go through it, to do different parts of the report ... Before I write the essay I actually looked at all the evidence I put together and the journal[s] and at the time I indexed them so I know what I was doing at what time.

Given the need to self-assess their learning at the end, the regular feedback given by the academic supervisor on their learning journals was acknowledged and valued:

From the start we were told this is different, this is not like any other paper, and you have to do the work yourself. From that I knew that I [had to] put in a lot of work by myself and try and assess my own work myself before handing it in. So I guess I was lucky because my academic supervisor was very helpful and I always got feedback from him every week on how I am going. In the reflective journals [I wrote down] everything that I would go through in a week [and] he'd read it and tell me what I need to improve on and all those sort of things, so I felt that was very helpful. (Ashmita)

For Aija, the value of the learning journals was in reminding her of her feelings and emotions at the time:

One of the things I remember [from the workshops] was the importance of writing weekly journals ... It sounds so clichéd but when you're actually sitting there writing the [end of placement] reflections it's like "oh okay, yeah, I'm glad I kept that", especially the feelings, the emotions that you go through when you're undertaking a task. I remember looking back and I thought did I really feel like that? "Oh yeah, I can remember, that's right, that's right", and that's when I knew that was very good ... Writing the reflective essay was quite a daunting thing for me because I always find that quite hard, having to write down how you feel about things. So, having those weekly [journals] was very good, very helpful.

Students found that they learned a lot about themselves when having to reflect on their workplace experiences:

I didn't really know the clients ... I had to ask a lot of questions and if they didn't answer the way I wanted them I had to change my questions, so they could understand what I was really asking. [But] one thing I learnt [is] don't be shy to ask questions. I myself think they are stupid questions, but that's one thing I learnt ... any small question, to ask them. (Ashmita)

I really want to be in a career now ... and I think the whole reflecting and thinking about where you come from and where you want to go helped me ... I think if you don't take notice of your mistakes and keep learning from them then you can't move forward. So I actually know now what it is that I want to be, what goal I'd like to achieve for myself in terms of a career. It's made me a lot more determined. (Aija)

Having to record in their portfolio what they have learnt about themselves from their placement experience seemed to reinforce students' learning:

I've always had a tentative attitude and so to be able to feel those things and say yes I can do that, I can do this, was good. For example, I had to do a mail merge, because our admin person wasn't available. So it wasn't a problem for me to say yeah I'm going to find out a way of how I'm going to do this. So I did that and I completed it successfully. So being able to write and see that in my portfolio was proof that when I say I do something I can do it. So if I come up with an obstacle I usually come up with a way around it. It was really neat to be able to see that when I looked back. (Aija)

[At the end] I was writing completely different things to my learning journals because the way I record it is something very valuable for me in that week. So I try to make sure I learned different things every day, every week. I can definitely see from

the learning journal[s] personalised growth, professional skills, because every week I was learning different things. (Ying)

All the students identified things they learned about the workplace that they didn't know beforehand. Mahesh noticed how classroom learning was applied in a different way in the workplace:

Actually, there was a big difference in the way you learn in the classroom and the way you apply it in work. There are a lot of shortcuts [at work] ... When you are working in a system ... you are approaching a problem in a different way. In practical [work] situations there's a time factor as well, so in that sense you can't go through the whole steps. For example, in my workplace you have [accounting] templates and stuff like that. You don't have to be doing everything from the beginning and so that save[s] a lot of time.

Most students identified sociocultural factors as being an important aspect of their workplace learning. Ri felt his experience helped him to understand how 'Kiwis' do business and how this would help his future career in China:

I really liked [the opportunity] to work in a Kiwi company, for the work experience. I intend to work for two or three years and then return to Shanghai. There are many joint venture businesses there and overseas work experience in western countries will make it easier for me to find a job. I can be the bridge between the Chinese company and the overseas' business because I know how western people do business and how Chinese people do business.

As noted above, Aija identifies herself as a Pacific student, and did her placement working with other Pacific people. Despite her background, she identified some surprising and interesting cultural differences, and in doing so discovered things about herself:

I've never worked in an organisation that was all Pacific Island before ... I come from a corporate background and I found having to fit into a specific culture and how they approached things was very interesting. I found myself a bit uncomfortable in some areas because I was so used to doing things in another way ... and then you come in and suddenly you're family, and the ethics and values and all those sorts of things ... I had to re-adjust myself to ... It was a culture within a culture ... I thought I could adjust automatically because I'm Pacific, but I found that's not necessarily the case because I work so differently, and just because I'm Pacific it doesn't mean I work in a Pacific way

... So that was why I found out a little bit about myself and I think that was very cool.

The importance of interacting and communicating at work was also identified by students:

At school [i.e., Takahe] we [do] not really have so much social interaction. Like the only thing we communicate is [to] our colleagues and our lecturers. When the lectures [finish] we come back home and [there is] not much interaction and communication ... When [we] come to the office you [realise] how [important it is] to connect with people all the time. (Jiao)

But it was the way people communicate at work, particularly the informal nature of it, which students had to adapt to:

I understand the Chinese thing well, but I wasn't sure about Kiwi Culture ... so a lot of things I don't really know. Sometimes they're quite funny and they make lots of jokes and things, and they would laugh and laugh ... and I don't think it's really funny. I understand the words, I understand what they're saying, but maybe there's something behind the language itself. Whether it's a culture thing I don't know, but yeah, I think it's a barrier between me and these guys. I find people like to be happy, like to be funny, so I just try to change myself a little bit, not be too boring. I have improved, I have my own opinions, so [I engage] in some casual communication apart from work. (Ying)

Jiao was surprised by the informality of how the 'boss' and the staff interact:

[What surprised me was] in New Zealand culture, the boss is interactive with staff. You know in China the boss is like [at a] higher level than the employee and they just really sit in [their] office and not really talk to the staff outside. But in New Zealand it is more informal, they talk and laugh ... [and] they just come straight into the office and talk to the boss and it is really different from what I observed from China.

For Ashmita, this informality was observed in relation to her interactions with the more "laid back", older staff:

You sort of have to change the way you talk [from] one person to the other. Like with the older person [it] is totally different from the younger person ... [All the older people] were sort of always open to me ... I felt it was really different if I had to talk to an older person ... than to the normal client managers who were under 30. The senior case managers were more laid back ... but the junior case managers weren't as laid back.

7.3.2.4 Goal setting and future intentions

As part of the portfolio requirements, students are required to set themselves personal and professional learning goals at the commencement of the placement. Students felt goal setting was valuable to them:

Working towards something [is valuable], because with that you know you're going to achieve it ... you [have to] keep aiming at something. If you don't have any goals you're sort of lost. (Ashmita)

And the act of writing the goals down was seen as a source of motivation to achieve them:

When you [have to] do this formally in writing, then [it is] forcing you [to do] it ... you are conscious more, you know, the drive is there, the pressure is there. (Mahesh)

However, some students struggled to identify these goals until they had been working for a few weeks:

The first couple of weeks were a struggle because I was not giving it a lot of thought. It was just a time-thing, trying to get through it. But by the fifth week it was becoming more real, I was thinking more deeply about what I was doing ... I had a plan. My [host] supervisor knew the plan and the skills that I was really trying to [develop]. My supervisor saw that throughout the process and she would volunteer that information [feedback] herself. (Ashmita)

Most students indicated that they would continue to use goal setting or other aspects of the portfolio assessment in the future, but in a more informal way. Ying intends to continue setting goals for herself and relates this to knowing the direction you are going in:

Whatever I've done need[ed] a direction. A goal is like a direction, so you can't do a good job without knowing what direction you're going to. So a goal is definitely important, but even if I don't write my goals out on paper, I have something definitely in my mind to tell myself what I want to achieve.

Aija, likewise, intends to continue reflecting on her experiences:

I'm starting to use that [reflection] now and even just subconsciously. I might be driving and I've just come back from somewhere and I'll be thinking, "why did I do that?" Those impressions like, so what, what are you going to do about it ... I think I just mentally held onto those and so when

I've come away from somewhere it usually goes through my mind anyway and I go home and then I might drop [write] something down, yeah.

For Jiao, on-going reflections will be used to update her personal blog on the internet, "I will have my personal blog, just for something interesting and something I've learned which is important".

7.3.2.5 Change in grading system

A key change made in the portfolio assessment was to move from an 11 point grading system to a three point grading system. Mixed views were expressed on the new three-point system. The students did not have any concern with the move away from the 11 point grading system. It was felt that a simpler three-point system, linked to relevant criteria, enabled students to know what they have to do to get a Pass or Merit Pass. "I find the Pass/Merit Pass really useful, helpful. I know what I have to do to get [a] Pass or Merit Pass. With other [courses] you don't know this ... what you have to do to get [an] A or B, [or] whatever" (Jiao). It was also considered that the simpler system gave students greater ownership of their learning:

I think it's a good system ... because it puts ownership on our own learning. It's saying you're almost ready to go out there now, you've almost finished your degree so what have you learnt? So I think it's good that it puts ownership back on students to say whether they're at a high level or just at an average level ... You've got more students taking control of their own development and learning; how much they want to put into it, whether they just want to get through or get through with excellence. (Aija)

It was considered that making a choice to go for a Merit Pass is dependent upon how students view the additional evidential requirements:

What I found is it's a bit difficult to get a Merit Pass because of the additional evidence required ... For me I went for a Pass because I thought I won't be able to produce the additional [evidence] for a Merit Pass. I just want to finish ... if I pass I'm happy. (Mahesh)

This difficulty was seen by Ashmita as being due to the level being set too high, "From my point of view I think the Merit Pass requirements [both for performance and critical reflections] are too high".

7.3.3 Review of student portfolios

7.3.3.1 Introduction

Six portfolios were selected for review from the 34 submitted. As outlined in Chapter 5, a purposeful aspect of the selection process was to ensure inclusion of students from all five business majors - accountancy, finance, management, information systems, and marketing. In addition, the process ensured that the portfolios selected included the four combinations of self-assessed grades and validated grades. That is:

- Self-assessed as a Pass and validated as a Pass;
- Self assessed as a Pass but validated as a Merit Pass;
- Self-assessed as a Merit Pass and validated as a Merit Pass; and
- Self assessed as a Merit Pass but validated as a Pass.

The purposeful aspect to the selection process described above resulted in two of the portfolios being selected from two students previously selected for interview (i.e., Ashmita and Ying). The main focus of this review was to show how the different components of the portfolio had contributed to students' learning; from the students' perspective. This was considered here by the way students had structured their portfolio and how they compiled the evidence in relation to each of the learning outcomes. It is not the intention here, nor the purpose of this thesis, to re-assess the evidential qualities of the portfolios and whether they adequately address the criteria provided. This process is built into the portfolio model itself, with academic validators determining this through their moderation of students' self-assessment. As discussed in Section 7.3.4 similarities and differences between the self-assessed grades and the validated grades provide an indication of student understanding of the evidential requirements, with the validation process ensuring evidential adequacy.

7.3.3.2 Overview of students and placements

A brief background of each student is provided here prior to reviewing their portfolios. Unless otherwise stated, the student had no previous business

work experience and English was not their first language. In all cases, pseudonyms were used.

Chan was a female local (New Zealand permanent resident) student who originated from China. Her business major was accountancy and she undertook her placement in a small chartered accountancy (CA) organisation providing professional accounting, tax and business services. The company was Chinese-owned and specialised in offering its services to new migrants and Chinese companies wishing to invest in New Zealand. Chan's placement (work) objectives were broad in scope and involved assisting with the tax returns, as well as undertaking a range of other accounting functions. Prior to the placement, Chan had been working for the firm on a part-time, fixed term basis. Chan submitted her portfolio for a Pass, which was subsequently validated as a Pass.

Xiu was also a female local (New Zealand permanent resident) student who originated from China. Her business major was accountancy and she undertook her placement in the head office of a car servicing and maintenance company. Her work objectives focused on various accounting work, particularly accounts payable and related tax work. Xiu submitted her portfolio as a Pass, but this was upgraded to a Merit Pass as a result of the validation process.

Wei was a male local (New Zealand permanent resident) student who originated from China. His business major was information systems and he undertook his placement in a small private education institution, specialising in business and language courses. His work objectives involved the development of a new database for enrolling English language students. Wei submitted for a Merit Pass, but this was reduced to a Pass in the validation process.

Ashmita was a female international student from Fiji. Her details were provided in Section 7.3.2. Ashmita submitted for a Pass, which was subsequently validated as a Pass.

Ying was a female local (New Zealand permanent resident) student who originates from China. Her details were also provided in Section 7.3.2. Ying submitted for a Merit Pass, which was subsequently validated as a Merit Pass.

Feng was a male international student from China. His business major was in management and he undertook his placement within an educational institution. His work objective involved creating an induction process for new staff. *Feng* submitted for a Pass, which was subsequently validated as a Pass.

7.3.3.3 Structuring of the evidence in the portfolios

While guidance is given to students on what evidence they need to include in their portfolios, students were free to structure and present them as they wished. Of the portfolios selected for review, these were ordered into sections either by learning outcome or chronologically according to the portfolio guidelines checklist (see first page of Appendix M). Most portfolios included an introductory section to provide background information on the placement organisation and the project. For example, *Xiu*'s portfolio included a summary of the placement work objectives and background information on the sponsor organisation. The portfolio also included photographs of work colleagues, the requirements of the portfolio, and reading materials used from the on-line BlackBoard™ site.

To aid readability, all students 'tabbed' their portfolio sections to correspond with the section numbering used in the contents page or 'road map'. The portfolios included a broad range of evidence to support achievement of the four learning outcomes. Such evidence included: completed collaborative assessment forms, learning journals, end of semester reflections, CV, personal and professional learning goals (PPLGs), summary worksheets, and a range of work documents to provide additional evidence for achievement of work performance and participation (learning outcomes one and two respectively). Most incorporated the evidence within the section linked to the particular learning outcome. Two students placed a number of supporting documents, used as part of the evidence for work performance and participation, in a separate section at the end. However, in both these cases, the evidence was not cross-referenced to the particular learning outcome. This would have required the (validating) reader to search for such links.

The size of portfolios ranged from approximately 100 pages (for the portfolios produced by Asmita and Feng) to over 300 pages (for the portfolios produced by Xiu and Ying). The larger portfolios included many work documents in appendices, such as organisation policies, systems, processes and structures.

7.3.3.4 Evidence provided for learning outcome one (completion of work objectives)

Students included a range of documents in their portfolios to highlight the qualities of their work and to provide supporting evidence for the comments made in the collaborative assessment forms. Typically, these documents included emails from work colleagues acknowledging or praising them for some work completed, testimonials from the workplace host, and work documents showing the work completed by the student. Given the importance of the collaborative assessment meeting, and the comments made on the related forms, to the evidential requirements for the achievement of work objectives, particular attention is given here to how these forms were completed.

Three of the six portfolios included all four collaborative assessment forms, that is, one from each of the three parties plus the summary form (agreed outcome). Chan and Feng used a single form to combine the academic supervisor views with the overall (summary) views. The comments made on the summary form appeared to be a combination of the comments made by the workplace host and the student on their forms, suggesting that in both these cases the academic chose not to complete a form and instead appeared to take more of a facilitative role at the meeting. For example, in Feng's portfolio in the 'focus for future development' column of the interpersonal competencies section, the academic supervisor wrote "improve spoken and written English skills", which reflected what the student had written rather than the workplace host. Whereas, in the 'focus for future development' column of the intellectual competencies section, the academic supervisor had written "develop more systems thinking", which reflected the comments made by the workplace host rather than the student. Ying's portfolio included two completed workplace host forms, the first being an interim performance and development assessment conducted half way through the

placement, and the other being the final assessment at the end of the placement. The latter was also used as the summary form, indicated by the inclusion of the three parties' signatures. This suggests that both the academic supervisor and the student were satisfied that the workplace host's comments represented the consensus views that emerged from the meeting and that a separate summary form was deemed unnecessary.

In all the portfolios, the comments written on the forms by the three parties about students' competencies' achievements indicated that careful attention was given to the criteria statements provided in the collaborative assessment guide (see last page of Appendix J). Students tended to complete the 'achievements' components of the four competency sections by repeating relevant statements from the outstanding or satisfactory boxes in the collaborative assessment guide that they perceived as being applicable to their performance. In contrast, most of the academics and workplace hosts completed these sections by adding their own words to describe the students' performance. Generally, their comments applied the criteria statements to performance in an integrated way. Wei's portfolio typifies this. Here, the workplace host comments on achievement in relation to his professional competencies, "[Wei] has shown great enthusiasm while doing this project. It was evident that he desired to learn more and challenge himself along the way. [He] shows awareness of the importance of being client focused". The academic's comment on Wei's professional competencies confirms, but also adds to, the workplace host's comments:

[Wei] has been very enthusiastic right from the start. Has taken the creation of the Microsoft Access™ database as a challenge and always had the "can-do" attitude. [He] worked hard to learn aspects of Microsoft Access™ that he did not know, and tried to create a system that is good for the organisation. [Wei] is a reliable person who always demonstrated initiative and resourcefulness ... to accommodate user requirements.

The comments made in the sections of the forms relating to areas of focus for future development of student competencies tended to be briefer than the comments made on the same competencies for performance achievements. This is perhaps not surprising given most comments on competency performance made by the three parties tended to be very positive. Ying's workplace host repeated his positive view of the student's performance by stating "more of the same" in two

of the sections of focus for future development. Most comments made by the three parties tended to highlight one or two areas for student development in each of the sections. A common theme in the interpersonal competencies, across the three parties, was the need for students to focus on their communication skills. There was a range of communication areas identified, including listening skills, oral English, written English, and reading/interpretation skills. Given that English is the second language of all these students, these comments on language skills are not unexpected. A few workplace hosts offered specific suggestions. For example, Chan's workplace host suggested that she "focus on written communication with the client as a native [speaker]. Also focus on asking more questions". Xiu's workplace host suggested that she should "improve written communication [by] reading articles, English grammar books etc., and [focus] improvements in oral English by speaking more slowly". In the area of intellectual competencies three of the students identified analysis and interpretation of data as areas of future focus. This was also indicated in similar comments made by the workplace hosts as well. Feng's workplace host felt that he needed to "develop more systems thinking", whereas Wei's workplace host suggested "more focus be placed on the interpretation of gathered information". For Xiu's workplace host it was more about the need for her to "be confident to manage complex ideas and information". In the sections covering professional competencies and project/time management competencies, there were few similarities across the portfolios, with the three parties providing a broad range of comments on the collaborative assessment forms. Most comments tended to be brief - usually one sentence.

In two of the portfolios, there was a consensus evident among the three parties in a number of comments made in some of the competency sections for future development. In many cases, the same statements from the collaborative assessment guide had been restated or paraphrased. It is not clear whether this consensus occurred as an outcome of the prior on-going dialogue between the parties (via the 'long conversations') or whether some or all of the parties completed this aspect of the form following the dialogue that occurred at the meeting.

In all the portfolios, students used their own words to describe their performance in the 'value of work completed' section of the collaborative

assessment form. For example, Chan listed all the different aspects of the work she successfully completed for the organisation. Wei integrated the criteria statements of this section to demonstrate why he believed his work was of outstanding value:

The [X] database is exceptional work of a high standard that has an immediate use to the organisation. Typically, the work shows some of the following benefits to the organisation: It has elements of creativity, uniqueness and innovation; the organisation now has an accurate information system for improved decision making and improved customer service; effective solutions were found to ideally suit the organisation; the detail is immaculate; there is a reduction in time to maintain the data; and the system has been updated by the inclusion of a procedures documentation to support expansion of the business.

The substance of workplace hosts' comments on the 'value of work completed' was not dissimilar to those of the students, although they tended to embellish the factual statements on work outcomes with affirmative and complimentary comments. Perhaps not surprisingly, in most cases academics made similar comments to those of the workplace hosts. The similarity of the wording used suggests that prior dialogue (as part of the 'long conversations') between the academic supervisor and the workplace host had occurred, and/or that the academics supervisors chose not to complete this section of the form until after the meeting. In either scenario, it appeared that the academics had chosen to let the other parties, particular the workplace hosts, take the lead on this. Like the students, workplace hosts used their own words to describe the value of the work completed, generally by applying relevant criteria statements to specific outcomes achieved by the student. An example of this can be seen in the comments made by Chan's workplace host:

[Chan] did a great job in my organisation ... [and developed] effective solutions and outcomes suited to my organisation. She identified the details immaculately. Furthermore [she] prepared documents and presentations to a professional level when one of our chartered accountants was away. Her work was beyond our expectations. We would like to offer her a full-time position in our company when she graduates.

In summary, the evidence provided in the portfolios for achievement of work objectives included completed collaborative assessment forms as well as a range of supporting documents attesting to the qualities of the students' work. Comments made on the forms by the three parties appeared to pay careful

attention to the criteria statements provided in the collaborative assessment guide. In the competency achievement sections students tended to comment by repeating relevant criteria statements (from either the ‘outstanding’ or satisfactory’ columns of the collaborative assessment guide) that they felt represented their achievements. In contrast, workplace hosts and academics tended to use their own words in matching the students’ performance to the criteria statements. Two themes appeared to emerge from comments made on areas of ‘focus for future development’. These were communication skills, and analysis and interpretation of data. There were similarities in the way comments were expressed by the three parties in this area as well as in the area of ‘value of work completed’. This appeared to indicate that prior dialogue had resulted in a consensus on student achievements in these areas or these components of the form were completed during or after the meeting. In three of the portfolios the completed summary form was combined either with the academic supervisor’s form or the workplace host’s form. Given the relative knowledge and experiences of the three parties in evaluating the students’ workplace performance and subsequent development needs, it is likely that the workplace host took the lead in these two components of the dialogue.

7.3.3.5 Evidence provided for learning outcome two (effective participation at work)

Not surprisingly, key evidence used by students was the comments made in the collaborative assessment forms. In most cases, students made a general reference to the achievement sections of the four competency categories. All the portfolios contained additional documents as further evidence. The main evidence used was the inclusion of relevant statements, either by the workplace host or by work colleagues attesting to the student’s *active* participation at work. Some examples follow:

Xiu provided: written comments attesting to her participation from the two colleagues she worked with; email exchanges with clients; and photographs of piled invoices demonstrating the volume of work she completed.

Ying included a large number of emails as evidence. The emails appeared to be all her incoming and outgoing emails during the placement period (approximately 200 pages were printed). While analysis of these emails is not provided here, a cursory review indicates an overall picture of a very busy, active, and personable student, demonstrating significant involvement in the work life of the company.

Chan indicated that evidence of achieving this learning outcome can be found in the collaborative assessment form and in her learning journal. However, no references were made to any specific parts of these to help the reader, although it becomes clear when reading the journals that the student commented on different aspects of her placement that demonstrate examples of when she uses her initiative. For example:

I felt very confident when I was answering the phone call from the IRD because X [her workplace host] already told me what would happen at this stage ... but also because I [had decided to] check all the details with my client before [hand].

7.3.3.6 Evidence provided for learning outcome three (critically reflect upon workplace experiences)

All the portfolios included 10 weekly learning journals, most following a similar structure by describing *what happened*, *how they felt about it*, and *what they learned from the experience*. In some cases, students added additional headings, such as *what can I add to my CV this week*. As was expected, each set of reflections is unique to the particular student's experiences. A brief summary of each student's reflections follows.

Chan initially focused attention in her journal writings on her feelings and her nervousness in making mistakes. In week two she highlighted the advice given by her workplace host, "[He] told me I would learn from asking questions and that no question is a stupid question. What he told me made me more relaxed. I now feel more confident than when I first started". Most of her early reflections focussed on task-related activities, which she occasionally supports with an attached document to show her achievements. By week eight her attention was focused on herself, and her professional development needs. For example, she

recognised that her skills in accountancy will always need to be contextualised: “I also need to know everything about the business”. With regard to end of placement reflections, Chan structured these in accordance with the reflective questions provided in the portfolio guidelines (see Appendix M). Not surprisingly, communication was identified as being of key importance to her. As she asks herself, “How do you talk to people? How do you write an email or fax? Could you fully understand clients’ needs? They are much related to your performance”. The student also related her learning to her future career intentions. She identified that she didn’t really know whether she would like an accounting job or not prior to undertaking her placement, but by the end realised that she did, “I knew I would love to be an accountant ... [and] I will choose an accounting firm in my future career”. In terms of workplace culture and practices, in response to the question *what differences did you notice between experienced staff and new staff?*, she responds that “experiences makes them confident, professional and shine”.

Xiu structured her weekly journals in a similar way to Chan, but added the additional prompts, *what would you do differently* and *what can you add to your CV this week?* These prompts provided relevant responses. For example, by week three she identified a number of things she has learned about the work and herself that she considers adding to her CV: “I am a good learner [who] can get into the role very quickly. I have a good understanding of the accounts payable functions in a complicated accounting system. I am self-managed and self-motivated”. Her end of placement reflections were broken down into ‘work experiences’, ‘key workplace events’, ‘ethical issues’, ‘theory-practice connections’ and ‘evaluation of personal & professional goals’. Some interesting insights were made when recognising the value of *situated learning* in practice:

I realised that there are a large number of terms that are totally new to me. I had no idea how NZ business operates even though I had studied business for a while. I found my practical experience is so scarce; all I know is the theory. In fact, if I do not know how to apply this theoretical knowledge into practice, they are just useless.

Later on, Xiu related this practice knowledge to the jargon used in the office: “From talking with colleagues, I have learned not only a lot of ‘office language’, but also many slangs and New Zealand culture”. Her communication skills were highlighted as a key area of learning for her: “At the beginning of the

placement I could not even open my mouth. I have stayed in the school environment so long and got used to just listening at most times”. She went on to outline a number of successful practical strategies she has employed, including those provided by work colleagues, which helped to improve her English skills. A common aspect of her reflective writing was her attention to her feelings, which were mostly related to the positive feedback she received on a number of occasions during her placement.

Wei focused most of his early writings on describing more technical aspects of his work and what happened, with little on how he felt or what he learned. However, by week four he began to explore issues in a more reflective way and beyond the technical parameters of his job:

Being around people from different culture[s], especially from a foreigner point of view, is a big challenge. Besides understanding what they mean I also need to make them trust me, which is one of the most difficult things for me at the moment.

His end-of-placement reflections focussed on three key learning experiences. The first was on receiving and giving feedback. He observed that: “At school, I receive instructions. In the workplace, I have to receive and give feedback to complete a task”, and goes on to state that “now I am confident to receive feedback at both positive and negative side, and give constructive feedback to people I work with”. The second involved his realisation of the importance of effective decision making. He regretted that when asked by his boss “what should we do?” following a meeting with an IT service provider, he was scared to answer it (in case he gave the wrong advice) so answered in a non-committal way. His boss then asked somebody else who provided a more concrete response (which was adopted). He reflected on this incident, noting that “decision making is arguably the most important ‘soft skill’ that information system workers need to learn ... but it is never taught anywhere. Plus we’re dealing with a hidden barrier – the fear of making decisions”. His third key experience concerned his observation of learning differences between education (school) and work:

There are dramatic differences between studying [at] the school and working in the real world. At school we get used to receiving instructions for assignments, understanding and memorising theories to apply to case studies in the exam. But in

the real world, we have to find [out] how people work ourselves and usually the theories we learned from school will be beat down by the reality.

Wei concluded by saying, “don’t be afraid to ask people”. Like other Chinese students he also recognised the importance of oral and written communication skills, as he often worried “about whether I communicate my thoughts efficiently and effectively”.

Ashmita focused her first journal writing on her nerves and the newness of things, particularly the formalities of work: “Having to wake up early and be dressed for work, I found quite [a] challenge”. She also used her early writings to describe the business structure and the responsibilities of the people she was working with. By week three, she began to notice qualitative differences in the staff. For example, she identified one particular member of the accounts staff, who she singled out as being a “star performer”. She observed how organised she was, and how “the majority of staff always go to her for advice on accounts and she always has time for each staff [person] that comes to her desk”. She then reflected on this:

The main reason behind her hard work is that she really loves what she does. [It seems that] to do well at work you need to plan your work well, understand your work well and overall love what you do at work.

In week four of her journal, she reflected on the importance of attitude to work: “People choose the attitude they take to work. This made me think of the attitude I was taking to work. I noticed that each staff [member] has a positive attitude towards the work they do each day”. She reflected that this “can make your work more enjoyable”. Later, she wrote about her progress on one of her professional learning goals (to work well with colleagues): “By making time to socialise with them. I felt that joining colleagues for lunch outside work and joining a colleague in her exercise by walking around the block, helped me to get to know them better”. This enabled her “to get along with each of them and be able to fit into the work environment more easily”. In her end of placement reflections, she provided three key learning experiences. The first one referred to her observations of how a manager dealt with a difficult situation involving a sick client and what she learned from this. In the second one she described a number

of technical aspects of the work she did and how this gave her an invaluable “insight into how law, finance and accounting theory are applied in practice”. Her third key learning experience came from the collaborative assessment meeting:

I was really scared about the meeting because I have never been assessed in this kind of situation before ... I got a lot of constructive feedback, such as not to be too shy in a work environment, not to be scared to speak out my thoughts ... Also, I was quite pleased with my host mentor stating that I learn well and that I was always wishing to extend my skills and knowledge. His comment I felt was exactly what I was at the branch for, to learn and gain more skills.

Ying, like many of the other students, focused her early journal writings on the technical aspects of her project (assisting with the redevelopment of the company’s website). In the first two weeks, she described how she felt under immense pressure and out of her depth, questioning whether this was the right project for her:

I felt lost and frustrated when I open[ed] the CMS [Contact Management System] application. CMS depends heavily on the HTML™ [Hyper Text Markup Language]. I doubted about this project at first. I’m a marketing student, not an IT apprentice. The [company] team seems not [to understand] the distinction between e-marketing and website building.

Later, when reflecting on this, she considered that this was in fact a valuable learning opportunity. In week three she mentioned her surprise and gratitude, that despite her lack of experience her host mentor “has given me a lot of encouragement and support to believe in my own skills and creativity”. She also noticed the importance of teamwork and how this “can really encourage people’s participation in their workplace ... and become more focused in their jobs and achieve their goals”. By week four she began noticing how other people work. For example, she identified the different communication styles of the people she worked with; some preferring to work with written documents and emails, while others preferring to communicate by phone or face-to-face. End of placement reflections were provided in the form of a ‘reflective essay’. Here she provided further reflections on her initial concerns about the adequacy of her web development technical skills, and how she had changed her views on the difference between marketing and IT skills. She also gave attention to her feelings and what she had learned from these. For example:

I am a quick learner of fresh and creative knowledge and ideas ... I am not very efficient when working on the “boring” projects, such as the database, and I sometime got stressed as well. It is my weakness I think I have to overcome. All positions have [their] attractive and down sides. I have to learn how to manage and master my own feelings toward different jobs.

Feng, like other students, was initially quite descriptive with his journal writing. However, by week three he started to reflect on the contextual aspect of knowledge in his field: “What I have learned about human resources is just ground knowledge. Knowledge must be combined with the organisation’s real situations ... There is no ‘best’ project plan in [the] workplace. We have to be flexible, be ready to deal with any unexpected situations”. There was also a sense of internal dialogue occurring when he acknowledges how he was trying to overcome a lack of self motivation due to what he viewed as limited communication channels with his work supervisor:

My working with minimum supervision through this semester takes away my self-motivation to continue on this project. However, to me, limited communication channels between [the] host supervisor and me is an opportunity [to] improve my self-motivation skills, and is requiring me to apply strong time management skills as well.

In his end of placement reflections he used the questions given in the portfolio guidelines as a broad structure. He recognised that understanding the expectations of the workplace host was critical to his performance. He outlined a number of strategies he employed at the start of the project, including the arrangement of regular “checkpoint” meetings “in order to gain feedback on progress, quality of my project, and to ensure I am following the guidelines”. Like many other students who have English as an additional language, he was particularly focused on improving his communication skills during the placement. He observed that:

I had much more chances [of] speaking English than ever before, plus I enrolled in an advanced English spoken class...in order to improve my oral English to a higher level. All the effort I had made me feel more confident when I spoke in English either when I was having meetings with my mentor or interviewed with some [staff] to gain ideas from.

In summary, for most students, reflecting on their experiences through their learning journals was a gradual process of *coming to know*. As they

progressed through their placement the depth of reflections seemed to increase, and they began to question their experiences and notice important aspects of workplace culture. In most cases, students showed little difficulty in expressing their feelings and emotions, and how this shaped their experiences. In all cases, the end of placement reflections built on one or more issues identified in the weekly journals. The end of placement reflections also attended to the *now what* aspect of their reflections by linking their experiences to their future personal and professional development needs. A common theme in students' reflections was communication; how this is viewed as a more important feature at work than it is in the classroom, particularly in being more proactive and not being afraid to ask questions. Another common theme was the differences observed between theory and practice, and the insights gained from the cultural and contextual factors informing how tasks and activities were completed at work.

7.3.3.7 Evidence provided for learning outcome four (identify, implement, and evaluate a personal development plan)

Evidential requirements for this learning outcome include a set of personal and professional learning goals (PPLGs) and a CV used by the student prior to commencement of the placement. In addition, the portfolio should also include an updated CV that takes into account the student's placement experiences. These experiences are expected to be informed by a *summary (learning) worksheet* that is intended to assist the student in identifying relevant strengths and competencies developed, or that they became aware of, during their placement. Finally, the student is required to include a new set of PPLGs for the following 6 to 12 months that are informed by their placement experiences.

The selected portfolios all included the required documents except, in a couple of cases, where no *summary worksheet* was provided. A brief overview of how each student compiled their evidence for this part of their portfolio follows. As expected, the information provided in their portfolio reflected the unique experiences of each student.

Chan provided two PPLGs for her placement, the first "to improve professional email writing skills". Specific performance measures and strategies

were provided to achieve this, including a document called ‘E-mail Etiquette’ downloaded from the Internet. Evidence of achievement was provided in the form of actual emails sent and received. A similar approach was taken with her second learning goal, “to master most of the functions of MYOB™ accounting software”, with relevant performance measures and strategies provided. Evidence of achievement was given in the form of example transactions posted through the software. The new PPLGs built on her original goals, specifying a different accounting package and extending her email writing skills. Two CV were provided, with the second taking on board competencies developed and identified as strengths in the collaborative assessment meeting, including: “Can do approach; keen to learn; reliable; and decision making, research and investigation”. In addition, tasks learned on the job placement (e.g., tax returns) were included in her CV under the heading ‘work experience’. A *Summary worksheet* was provided, showing both task-related learning as well as competencies developed.

Xiu provided two PPLGs for her placement. Like Chan, this included a technical, work-related goal “improve knowledge of accts payable and all related functions”, and a more personal goal “improve oral communication skills”. Each of the goals provided further clarity to make them more specific, as well as relevant details to indicate how they were to be measured and what strategies would be employed to achieve them. For example, strategies identified to meet the second goal (oral communication) were given as:

- Watching my colleagues and how they communicate with each other and also colleagues;
- Listening to English Channel radio everyday for one hour on the way to work and on the way home;
- Reading English newspapers everyday in lunchtime to acquire five new vocabularies; and
- Tell my colleagues my goals and ask their help to point out mistakes in the conversations.

Xiu used her ‘reflective essay’ to discuss her goal achievements and linked these to her new goals, which were to improve her written English skills and to improve her time management. Both provided evaluation measures and strategies. Both pre-placement and post-internship CV were provided. Rather than provide a separate summary worksheet, she listed the work skills / competencies she developed during the placement in the ‘work history’ section of her new CV,

although these tended to focus on the technical aspects of her placement achievements.

Wei also provided two pre-placement PPLGs, the first being to “improve my client focus skills in the workplace environment”, and the second being “to create a database system using Visual Basic™ and Microsoft Access™”. The key measurable given for the first goal was the “understanding and meeting or exceeding user needs”. However, later in this document he listed what appeared to be strategies for achieving this goal under the heading ‘evaluation (performance) measures’. These are stated as “to successfully build and communicate users; target the right needs; define value and service with science not opinion; and to achieve early wins by initiating the work”. Comments made in his collaborative assessment form and his ‘reflective summary’ indicated that he had met these goals, although no explicit reference to his goals were made. He provided three new learning goals – two professional and one personal. One was very similar to his original personal goal, but broader in scope and included a number of strategy elements, “to develop a strong client focus by being able to initiate task, critically analyse and communicate customer requirements and build up effective consulting relationships with clients”. Like his original goals, his goals were broad in scope, and again there appeared to be some confusion with what he understood as being ‘goals’, ‘strategies’ (actions taken to meet goals), and the identification of ‘performance measures’ (to test whether the goal has been met). He provided two CV, with the post-internship CV providing an update to his work history to include his placement, and an update to his technical skills listed under the heading ‘skills summary’. He provided a detailed summary (learning) worksheet identifying the tasks he did each week, together with competencies / skills he used. For example, in week eight he identified he had developed and/or employed “a ‘can-do’ attitude; initiative; learning how to gain and analyse ‘user feedback’; and interpersonal communication”.

Ashmita provided four pre-placement goals, two personal and two professional. Her first personal goal involved ‘having a healthy lifestyle’. This was broken down into three sub-goals: “eating healthy food; exercising regularly; and taking time out to reflect on my life”. The evaluation measures specified what she would do to meet each goal, for example “exercise daily by taking 30 minute

walks”. In fact her evaluation measures are strategies, and were not too dissimilar to what she had already listed under ‘strategies’. Her second personal goal was “to obtain a restricted driving licence”. Again, there was much overlap between evaluation measures and strategies. Her two ‘professional’ goals, “gaining work experience” and “working well with colleagues”, followed a similar pattern, with confusion between evaluation and strategy. The goals were quite broad in scope, with the evaluation measures written more as ‘sub-goals’. The end of placement self-assessment of her goals was summed up as “a mixture of success and failure”. For example, she stated that she had “met professional goals, but not very successful on most of the personal goals”, and then provided an explanation on each. Post-placement goals included two personal and two professional. As with the original PPLGs, there was some overlap and confusion between the three components of goal statements, strategies and evaluation methods. For example, one of her personal goals was to gain a work permit. Under the heading ‘evaluation measures’ she stated, “each day after my last exam till the end of December I am to gather all the information and documents needed for my work permit application”. With regard to her CV, Ashmita used a highlighter to show changes made between her pre and post-internship CV. These were informed by entries made in a separate document (Learning Worksheet). Here she listed the technical aspects of the job she learned on placement under the ‘Learning Experience’ column, for example, “assisted in charge of fees and disbursements”. In another column, she listed the competencies she believed she had developed during the placement period, such as “interpersonal communication, customer service skills and team player”, which are incorporated into her new CV. She also added into her new CV a number of technical skills she learned on placement in the section headed ‘Employment History’ later on. She had also been able to add her host mentor as an additional entry under ‘Verbal Referees’.

Ying provided details of two pre-placement goals, “to develop more professional and effective interpersonal communication” and a technical goal related to her work, “increase the website traffic by 20% compared with [the] start [date]”. For both goals, she provided specific strategies she intended to employ to meet them. However, as with other students there appeared to be some overlap between her ‘evaluation measures’ and her ‘strategies’. For example, under ‘evaluation measures’ for her first goal she stated that “I will need to engage in

casual conversations with my colleagues, such as on current news and affairs or other things that are of common interest”. Evaluation of her goals is briefly mentioned in her placement reflections. For her new PPLGs she included one personal goal, “finding a balance between work and personal life” and one professional goal. “increasing [the company] website traffic by a further 20%”. As with the original PPLGs there was some confusion between evaluation measures, goals and strategies. She provided both CV, although the only change was in the work history where she included the technical skills she developed and tasks completed during her placement. She used her ‘summary worksheet’ to provide the ‘How’ details for each of the tasks she lists in her CV under the company (placement) work experience. She listed these task headings in the worksheet under a column heading called ‘Core Strengths’. No competencies were included in the worksheet. Both CV listed ‘Strengths’ as broad personal statements, rather than as individual competencies. For example, one of the strengths is listed as “Able to work unsupervised, under pressure and as part of a team”. It is evident that each of the eight ‘Strengths’ listed subsumes a number of different individual competencies. Her reflections were not inconsistent with the ‘Strengths’ she had listed.

Feng, like most other students, also provided two pre-placement PPLGs – “to improve communication skills to a professional level” and “to improve my skill of time management”. The first goal appeared both ambitious and non-specific. The way he intended to measure achievement of this indicated that the focus of his goal was on spoken English, although this also appeared to be vague, “I speak English more clearly, my pronunciation is correct and I speak at a pace listeners can follow”. Nevertheless, in his reflective summary at the end of his placement he confidently stated that:

I believe there is a significant improvement of my communication skills during the 10 weeks. I had much more chances speaking in English than ever before, plus I enrolled in an advanced English spoken class ... All the effort had me feel more confident when I spoke in English ... However, I still need to enhance this speaking skills since I couldn’t speak as fluent as the Kiwis. But it didn’t disappoint me because I set it as a long term learning goal in the future.

Measuring the time management goal appears more precise in its focus, but was written more as a strategy than an evaluation measure, for example: “I

will keep a daily diary and ‘to do’ list during my placement, I will check it twice a week to make sure I can complete every task on time”. One of his three new goals was linked to both his pre and post-placement goals (time management) and to the feedback he received at the collaborative assessment meeting. This goal was stated as “keep improving my time management skills in next 12 months, which includes keep[ing] to intended deadlines, ability to handle multi-tasks without having heavy pressure, and able to identify key priorities”. Again, like his original goals, there was some confusion apparent between goals, strategies and evaluation measures. For example, under a heading that says “Measures and strategies for achieving goals”, a list of bulleted points was given for two of his goals (the second goal is to “strengthen my systems thinking”), without indicating whether it was a strategy or evaluation measure. No information was provided for his third goal, “improving accuracy”. He provided both CV, although the only change between the pre-placement and post-placement CV was in the work history where he included the technical skills and tasks completed during his placement. No summary worksheet was provided.

In summary, the information provided in this part of the portfolios indicated that students made a link between their prior knowledge, experiences and competencies, and their placement experiences. While the quality of evidence varied between portfolios, all students had participated in goal setting, reflecting on their achievements, and setting new goals based on their experiences. Goal setting was generally used by students to focus their learning in an area of perceived weakness. In addition, the inclusion of an updated CV and a new set of goals forced attention to self-awareness of students’ strengths and weaknesses and their subsequent development needs. A common goal, both pre and post placement, was the improvement of various aspects of communication, particularly oral and written English. In addition, a number of students used aspects of their work objectives to set a related goal. It was apparent that many students struggled with their understanding of the terms ‘strategies’ (for meeting their goals) and ‘performance measures’ (to determine whether they achieve their goals), and in some cases this was linked to the lack of clarity and specificity of the goals themselves. As a consequence there appears to be some variability in the quality of the way student goals are expressed, which may have impacted on the effectiveness of the goals to student learning.

7.3.4 Review of final grading

7.3.4.1 Analysis of grades

The process for the determination of final grades in semester two was the same as that used in semester one (see flowchart on the last page of Appendix K). In semester one it was shown that there were a large number of students who submitted incomplete portfolios, that is, one or more key documents were missing. In addition, there were a considerable number of completed portfolios where students' self-assessed grades were different to the final grades awarded following validation; especially students who submitted for a Merit Pass (see Section 7.2.3.1). A number of possible reasons were given for students not attending adequately to the portfolio's evidential requirements, such as the uniqueness and 'newness' of this form of assessment, the influence of previous business internship students in providing incorrect advice on the assessment to current students, and the desire of some students to submit for the highest grade (a Merit Pass) even if they felt they had provided insufficient evidence. However, from the feedback received from students and academic supervisors at the end of semester one described earlier, a key factor in these differences is likely to have come from students' uncertainties about the portfolio requirements. As a result of this feedback the guidelines for portfolio completion were reviewed and a number of changes were made. In addition, relevant changes were made to other course materials and student preparation activities. It was anticipated that these changes, together with the experiences gained by students and academic supervisors in semester one, would result in a greater understanding of the portfolio requirements, with fewer incomplete portfolios submitted and a closer match between students' self assessed grades and the final validated grades.

In semester two there were no portfolios submitted with missing documents, resulting in no portfolios having to be returned to students before they could be validated. This contrasts sharply with 54% of portfolios that had to be returned to students in semester one (see Section 7.2.3.1). A review of portfolios submitted for validation was undertaken and the results are shown in Table 7.14. The table also includes the corresponding results for semester one for comparative purposes.

Table 7.14: Comparison of final grades: Semester one and semester two

	Semester one	Semester two
Submission of portfolios:		
Number of students who submitted for a Pass	14 (50%)	25 (74%)
Number of students who submitted for a Merit Pass	14 (50%)	9 (26%)
Total number of portfolios submitted	28 (100%)	34 (100%)
Validation of portfolios submitted for a Pass:		
Number validated (confirmed) as a Pass	8 (58%)	20 (80%)
Number validated as a Merit Pass	3 (21%)	1 (4%)
Number validated as requiring resubmission*	3 (21%)	4 (16%)
Validation of portfolios submitted for a Merit Pass:		
Number validated (confirmed) as a Merit Pass	6 (42%)	6 (67%)
Number validated as a Pass	8 (58%)	3 (33%)
Total number of portfolios submitted that were reliably self assessed (i.e. validated grade confirmed submitted grade)	14 (50%)	26 (76%)
Final grades awarded:		
Number of Pass grades	19 (68%)	26 (76%)
Number of Merit Pass grades	9 (32%)	7 (21%)
Number of Not Yet Competent grades	0	1 (3%)

* all these students subsequently resubmitted and gained a Pass, except one student in semester two who chose not to resubmit due to other commitments

A notable change in semester two is the increase in the proportion of students who submitted for a Pass grade, and the corresponding reduction of those submitting for a Merit Pass grade. In semester one half the students submitted for a Pass, with the other half submitting for a Merit Pass. Whereas in semester two, nearly three quarters (74%) of the students submitted for a Pass, with 26% submitting for a Merit Pass. The table also shows a noticeable change in the validity of students' self-assessment. In semester two, 80% of students who submitted their portfolio for a Pass subsequently had this validated as a Pass. This contrasts with semester one when only 58% of students had their self-assessed Pass grade validated as a Pass. Similarly, 67% of students who submitted their portfolio for a Merit Pass had this validated as a Merit Pass. This contrasts with semester one when only 42% of students had their self-assessed Merit Pass grade validated as a Merit Pass. Overall, the total percentage of portfolios submitted that were validly self assessed in semester two, that is the validated grade was the same as the self-assessed grade, was 76%. This compares with 50% in semester one.

In considering why these differences occurred between semester one and two, one cannot discount the possibility that this may have resulted from differences between the two groups of students, for example, in ability, attitude, motivation, and performance. However, given the numbers of students involved in submitting portfolios in the two semesters, it is likely that the characteristics of the two groups as a whole were sufficiently similar to mitigate this as a contributing factor. More likely reasons for the differences are: the changes made to the portfolio guidelines, the related course materials and the preparatory student workshops; academic supervisors being more aware of the portfolio requirements and subsequently providing more accurate advice; and more accurate informal advice being provided through the student network (from those who completed the internship in semester one).

7.3.4.2 The validation process

In semester two 17 academics supervised business internship students, only one of whom was new to internship supervision. Alice selected nine of the more experienced supervisors to validate student portfolios. Six of the nine had validated portfolios in semester one. The three new validators were given a briefing on the process by Alice. The 34 submitted portfolios were distributed randomly to the ‘validators’, including Alice, who validated eight portfolios herself. Validators were not given portfolios of students they had supervised. The standard feedback form used in semester one was provided to the validators for their use in validating the portfolio (see Appendix L). Completed feedback forms and portfolios are collated by Alice. Where differences are indicated between a student’s self assessed grade and the validator’s grade, the feedback form and the portfolio is brought to the validation team meeting for review and discussion.

As with the process in semester one, following the validation of the students’ portfolios all the validators were invited to participate in the validation team meeting. Five of the nine validators were able to attend the meeting, including Alice who acted as the facilitator. In total, there were eight portfolios requiring review due to differences between the students’ and the original validators’ assessment. As with semester one, these were distributed by Alice in such a way that each portfolio and the related feedback form would be reviewed

by at least two members of the validation team. Care was taken to avoid the situation of a validator reviewing a portfolio which they had validated originally.

Once the portfolios had been reviewed, relevant validation team members were asked to comment on the conclusion they had come to. Of the five portfolios submitted for a Pass that were originally validated differently, four were confirmed by the validation team readers as lacking sufficient evidence and requiring resubmission. In three of these four cases, the students had provided the weekly learning journals, but provided only brief end of placement reflections (less than a page) with little or no connection made between work performance, the learning journals, their old CV and personal and professional learning goals (PPLGs) and their new CV and PPLGs. In the case of the fourth student, the portfolio provided no end of placement reflections, new CV or new set of PPLGs. Alice confirmed that because this portfolio was submitted late it went straight to a validator, with no initial check made to ensure completeness of key documents. With regard to the fifth student, it was assumed that the student had submitted for a Pass originally, as there was no indication in the portfolio whether the student was submitting evidence for a Pass or Merit Pass. However, the original validator had indicated this deserved a Merit Pass. The feedback form supplied with the portfolio indicated that the student had demonstrated excellence in both work performance and critical reflection on their experiences. Comments had been made on the feedback form that the updated CV and new personal and professional learning goals (PPLGs) were much improved and that the student had reflected well, making a clear connection between the collaborative assessment comments and their new PPLGs. The pair of validators reviewing this portfolio concurred with the conclusion reached by the original validator, and a Merit Pass was awarded. Of the four portfolios requiring resubmission, three were subsequently resubmitted and gained a Pass. The fourth student, who originally provided no end of placement reflections, new CV or a new set of PPLGs, chose not to resubmit for personal reasons and opted instead to re-enrol in the course the following semester.

In the case of the remaining three portfolios, the students had submitted these for a Merit Pass which were subsequently considered to be at a Pass level by the original validators. The reason for the original validators' different assessment

was the failure to provide sufficient evidence to demonstrate excellence in critically reflecting on their experiences. From comments made by the original validators on the feedback forms, the end of placement reflections in all three portfolios had failed to make strong connections between the students' original PPLGs, their learning experiences from the learning journals and the feedback received at the collaborative assessment meeting. In addition, no evidence was supplied to indicate increased self-awareness. Awarding of a Pass grade for these three students was confirmed by the validation team. It was later pointed out by Alice that these portfolios were completed by three students who were studying in New Zealand for one semester only on a 'study abroad' scheme from a European country. She did not believe the lack of evidence on the reflections was due to not understanding the portfolios requirements, as both their oral and written English skills were excellent. She felt it more likely that the similarity in missing evidence was probably due to decisions they reached together on the type and quality of evidence they felt they needed to submit. She understood that the grade levels the students achieved in the internship, and the other two courses they had studied, did not impact on their programme of study in their home country. The only requirement of their host university in Europe was that they passed the courses they enrolled in.

7.3.5 Academic focus group: Semester two experiences

Those validators who participated in the validators' team meeting also agreed to participate in a focus group interview for this study. The combined experiences of both supervision and validation enabled these five academics to comment on all aspects of the portfolio assessment process. Three of these five academics (i.e., Graham, Carla, & Alice – the Business Internship Coordinator) had participated in the validation team meeting in semester one, with the remaining two (Vanessa & Andy) participating in this process for the first time. Unlike the other four academics, Andy was also new to validation generally, that is, he had read and validated student portfolios for the first time in semester two.

The findings are presented here under three broad headings: the impact of portfolio assessment on learning; the impact of the collaborative assessment process on learning; and areas for improvement.

7.3.5.1 The impact of the portfolio assessment on perceptions of learning

The introduction of portfolios was perceived to have improved the quality of student learning. First, this related to how the learning from placement experiences was now seen to be on-going, rather than something that was only considered by students at the end of the placement in order to meet the requirements of the assessment:

I always believed, and I still probably feel that way now, [that] when we did it the old way [pre-portfolio] it always seemed that the students were just quickly writing [like] mad at the very end. I remember the comments from the host [on the collaborative assessment form] and also the reflective essay, and I felt that all along that the work was actually done three days before it had to be handed in and if you were gifted to put all this together coherently, that was fine. But I think this whole business of what you did now [for the portfolio] is you have to think about what you did each week and what happened ... they can focus more, so I think that's a very positive thing. (Graham)

The portfolios were also seen as a way of capturing the unique experiences of each student:

One of the things I noticed from the ones I marked [validated] was the different quality of tasks they did ... One person I marked will get a Merit, and because of what they've produced in a very difficult situation it was a great deal further away from somebody just coming in the door and having everything explained to them. So the qualities of work [that students do] in a workplace vary hugely ... The beauty is that these differences enable people [to] rise to their own level of ability and I think that's the beauty of it. So each one is adding value through their learning experience ... and the portfolios allow that experience to come through. (Carla)

The improvement in student learning was also observed in relation to how the portfolios were completed in semester two, as compared to semester one:

I noticed a real improvement in the portfolios I validated. They were so much easier to access and understand and get through. So the whole indexing and road mappings obviously come through. Last time I was weaving through the streets, trying to find the information, this time it was much easier. (Vanessa)

The improvement was related to a greater awareness of the portfolio's requirements:

My impression from the students is that they were much more aware of things than what they had done previously. Like the light came on earlier than perhaps what happened last semester ... students settled in better. (Graham)

A possible explanation given for the improvement between the semesters was the improved attendance at the pre-placement workshops:

What I think happened was that in the first semester students listened to the “jungle telegraph” which said “oh you don't really need to go to those sessions” ... and then of course students used the portfolio for the first time. Now the jungle telegraph says if you don't go to those sessions you're probably going to struggle. I think it is the students themselves that have created the need. They have put value on those sessions, that wasn't perhaps there before. (Alice)

The impact of the portfolio on student learning was seen in students' reflections on their learning:

I think reflections are actually more extended than they were before and I found some of them [pre-portfolio] were very brief, but this year they really did give some thought to it. (Andy)

The improvement in student effort was seen in the quality of the reflections and how much students learned from their experiences:

I think the portfolio demonstrated to them how much they got from it. The comments at the end were focused on ‘how much I learned’. By analysing their experiences again, through the weekly journals and the comments in the collaborative assessment, I think they were surprised how much they had actually learned and achieved. (Carla)

The improvement in student learning was also seen as being related to regular communication with the students:

I found improvement [in student learning] and I think that can be attributed to keeping in touch with the students yourself, I think with those weekly emails you [Alice] sent about [what you should be capturing in] your learning journal, [for example] this is what you should be doing ... I think was a great help to them. At least that was the impression I got when I marked [validated] the several that I [had]. For the most part I was pleased with the level. (Graham)

The quality of the reflections was perceived also to have improved from the previous semester: “They got a better handle on reflection this time around; definitely a much higher standard” (Vanessa).

7.3.5.2 *Impact of the collaborative assessment process on learning*

An important aspect of the portfolio to student learning is the collaborative assessment of student performance. While this component was in place during the pre-intervention assessment process, a key change was the removal of marks. This change was considered to have improved the quantity and quality of feedback given to students, particularly in identifying areas for improvement:

Well again I've been doing this for several years now and I felt when I went for those [collaborative assessment] meetings I never used to hear any negative feedback, or areas for improvement ... I think that people [workplace hosts and academic supervisors] still say good things about them [students] but [because] they didn't have to be marking down a number, so to speak, there were also some good comments made about what students need to work on. (Graham)

The removal of marks was also viewed as strengthening workplace hosts' feedback:

Well I think that [the removal of marks] was good for the student as well. For the host just to say, well, [this is] where were they are on that sort of [numeric] scale didn't really have much impact [for the student]. I thought they [the comments] were much stronger. (Andy)

The perceived benefits to learning included helping students to be more self-aware of their strengths and weaknesses.

Probably I think taking away the marks forced [students] to think more about what areas they were good at, strong and weak at, and which ones to develop. (Vanessa)

An explanation was offered for why the removal of the marks appeared to have improved the feedback given:

I felt everybody, the supervisors, the students, and the hosts, had all gone back to the sheets [collaborative assessment form and guide]. That's where they're drawing their comments from. That was interesting, taking away the marks leading you on back to the sheets. (Alice)

There was also a view that the three parties' comments on areas for development were more consistent and focused:

It was interesting that I noticed that both the host and the student tended to identify the same thing, such as "needs to improve on language skills, needs to improve time management, needs to

demonstrate more initiative and problem solving skills”. I thought that was interesting, I thought that was more targeted [than before]. (Alice)

This consistency was noticeable during the dialogue at the meeting, as much as it was in the comments made on the collaborative assessment forms:

I felt that [consistency in views] coming through a lot more, there was far more of a development thread this time, you know when you are listening [to workplace hosts and students] for that thread, that consistency, and they’ve tied it together. I saw an improvement in that area. (Vanessa)

7.3.5.3 Areas for improvement

A few comments were offered in relation to how the portfolio assessment might be improved. Student evaluation of their placement goals was seen as an area of weakness, although no solutions were offered:

The ones that I read didn’t feel we got a really good critique of how their [placement] goals had impacted on their learning ... they were very, very, brief about this. (Alice)

Most of the discussion on possible improvements related to the collaborative assessment process:

I still notice how really positive the host is with their comments and the sort of feeling that they are slightly exaggerated and this may relate to the fact they have had them for free. (Cathy)

This generated some discussion on whether the collaborative assessment process, involving open dialogue, is the best way of eliciting honest feedback:

Have we ever thought about any part being confidential? Perhaps the workplace hosts’ comments could just go through to the [academic] supervisor, so that initial round [is] absolutely confidential and then maybe it could be the academic supervisor that would go through with the summary instead of [having a three-way dialogue]. (Vanessa)

This view of having some confidentiality was also related to how student performance is assessed in final exams:

Do we need to have the student in there? I mean if this is a final report ... I mean we don’t have the students involved [in assessment] when we are doing final exams kind of thing. Do you think we would get more truth out the host if the student was not there? (Graham)

But creating a confidential component in the collaborative assessment process was seen as being at odds with the openness of the process:

I think it would change the whole philosophy to not be open and [not to have] open discussion. Maybe [it is] the level of honesty you are talking about, [but] there is a trade off. I think you are talking about this being learning, industrial learning, although the student has to be involved in that feedback I would have thought. (Andy)

However, this was viewed differently by Graham, who saw the honesty emerging from a prior confidential meeting:

But the honest feedback comes from that [separate meeting with the workplace host], I would then meet with the student and say look good work however, these are the comments given - positive and negative. Here's some constructive criticism ... I did think we could draw out more if it was just the supervisor and the host meeting [first].

From her reading of the (eight) portfolios she had read, Alice did not believe that workplace hosts were holding back with their comments and that the honesty was coming through: "I think they were quite honest this time round, I actually felt the ones that I read, there was actually some good concrete practical advice given".

It was suggested that in situations where academics felt that they were getting less than honest responses from workplace hosts this was likely to be related to the prior training of the academic supervisors and their ability to ask the right questions:

I think maybe instead we should be trying to ask the right questions in that [collaborative assessment] meeting ... let them [the students] talk, ask them a few pointed questions. Maybe we need a little bit more training when we go into that meeting to try and get to the bottom of things. The other thing is of course, is that they haven't paid for the students and so we need to bear that in mind at the end of the day. They are going to be naturally a little bit more positive than they would be if they were having to pay for the students. (Vanessa)

Andy agreed that asking the right questions was important, and indicated that he tries to do this at his meetings, and this generally results in good feedback:

One of the questions I do ask at the very end when we have our assessment is, "is there any piece of advice that you could give the student if they're going to go out into the business world tomorrow ... what kind of advice might you give to them".

They will then say something like “they need to look at those time management skills if they are doing this and that” ... and I think it is good feedback.

7.3.6 Course coordinator feedback

Following completion of semester two a formal interview was conducted with the internship’s course coordinator, Alice. Given Alice’s considerable involvement in both the development and implementation of the model her views on the portfolio assessment over the previous year were particularly important. While some of her views on the portfolio assessment in semester two were expressed at the academic focus group meeting in the previous section, the purpose of a separate interview was to explore her views in more depth and to elicit other related feedback that she may not have had the time to provide at the meeting. The findings are reported here under three broad headings: reflections on semester two experiences of the portfolio assessment model; impact of changes to the collaborative assessment process on learning; and areas for improvement.

7.3.6.1 Reflections on semester two experiences of the portfolio assessment model

In response to a question asking her to sum up her views on portfolio assessment in semester two, Alice considered that it had made a really positive contribution to learning, evidenced by the connection students are able to make between their previous experiences, their placement experiences and their future development needs:

I validated several portfolios this semester and I think they demonstrate a much richer learning experience. I think the really positive thing that has come out of it is the relationship between learning and work, the gap has been closed, and I see that in examples from students where they’ve written about their experiences, how they’ve reflected on those in light of what they’ve learnt, in light of their career, in light of themselves - both personally and professionally. So if you want to sum it up, students are getting a much more intense learning experience that draws upon their past experiences but firmly lands them in their future, and that’s my conclusion.

Alice felt that there was noticeable improvement in the portfolios in semester two, which she related to running the portfolio assessment for two

semesters, enabling relevant changes to be made as a result of semester one experiences:

Running it thru the second time ... I'm so glad [we did this] because I really feel we got a lot of the administrative spikes out of it and this time round the quality of the portfolios overall is much better - better data, you enjoy reading them more. I think the connections are better, students comment on the evaluations of their overall experience are more positive.

The quality of evidence produced for the portfolios was also considered to have improved considerably in semester two, which Alice put down primarily to the changes made to the portfolio guidelines. This had a particular impact on evidence for the work performance:

This time round the very clear guide to divide the portfolio into four learning outcomes focussed students on producing evidence around their placement and the quality of that evidence is so much better than last semester. There's emails, notes, reports and also all of the students put their collaborative assessment forms into that section. [In addition] there's lots of good evidence in testimonials, emails that draw on that collaborative assessment ... so that's well done.

7.3.6.2 Impact of changes to the collaborative assessment process on learning

The comments made on the collaborative assessment forms were also viewed as being a significant improvement, particularly from the workplace hosts and academic supervisors:

The most revealing comments are now from the hosts who feel they are able to be much more descriptive and the quality and the quantity of those comments significantly improved ... and also academic supervisors wrote more than they've ever written before.

The removal of the marks from the collaborative assessment process was seen by Alice as refocusing attention to the competency guide:

It's interesting where the comment is drawn from ... it's drawn directly from that guide. So many of the words used [in the guide] find themselves on the [forms] ... By taking the marks away you've put people into the frame of that competency guide so they're working a different paradigm probably than before.

The improved feedback from workplace hosts and academic supervisors may also have contributed to improvements in the students' awareness of themselves, as expressed in their new CV and future learning goals:

The other thing is the personal and professional development plan. There is much stronger linkage between what's done in the collaborative assessment and the [new] personal and professional learning goals ... and these influenced the new CV. So that link has been strengthened this time round.

7.3.6.3 Areas for improvement

While improvement was apparent in the linkages made between students' placement experiences and future learning goals, Alice felt that goal setting and their subsequent review, done at the start of the placement, could be improved. In the pre-intervention assessment process the students' learning goals were reviewed by Alice, as the course coordinator, and feedback was given before goals were finalised for their placement. In the new portfolio assessment these goals are reviewed by the students' academic supervisors. Alice feels that spreading this review and feedback among a large number of academics has reduced the quality, "I don't feel there's good quality staff assessment of the first few learning goals. We've lost that. So what I'm saying is we've lost some and gained some". This change occurred largely as a result of Alice's increased workload, which was caused by a reduction in administrative support for the business internship at the beginning of semester one. Alice identified that this occurred because of a general reduction in the School's budget due to fewer student enrolments.

Having a large number of academic supervisors was also seen as problematic generally. While some training is provided to academic supervisors, Alice considered this was insufficient given the nature of the course:

Not everyone should be able to be a supervisor, in fact you should have to undergo specific training and research supervision before you can start to do this because unless you understand pedagogically where this is coming from, what this is about and what the student is trying to achieve you cannot be acting as a good supervisor, mentor or guide, and there's huge variability in supervisors in this School.

Alice's preference would be to have a smaller team of academic supervisors drawn from academics teaching final year (i.e., Level 7 on the NZQA Framework – see Chapter 2) courses in order to integrate students' experiences back into the classroom:

My particular concern with the business internship is that it's isolated and divorced from all the other Level 7 courses. It seems to me the best supervisors would be the Level 7 teachers, because they should be drawing upon the student knowledge [gained from their experiences] in that last semester and know what students have been doing. I think we're missing a really good learning opportunity because we're not getting many Level 7 teachers as supervisors.

Having a smaller academic supervision team comprised of Level 7 teachers was not seen as the complete solution however. Alice considered it would take time to train them and that it was not certain whether they would all be comfortable with the different nature of this type of course, with its emphasis on student self-awareness and competency development:

There's a lack of understanding about what cooperative education is, about what its processes are and what it sets out to achieve. It's also about the lack of understanding of what competency is, and you put them both together ... I think there's a knowledge gap. Unfortunately it's a situation where the staff don't know what the staff don't know.

Academic staff reluctance to take on board the business internship's different approach to learning and assessment was also seen to be related to a power and control issue:

[Some] lecturers feel they have a lack of control over the process, that they aren't happy about the variability of placements and organisations, that students are having far more challenging experiences beyond the classroom ... and it's more than many of our lecturers can cope with. [As well as] a lack of understanding, training, and education, I think it's a power thing, a power and control issue.

Alice indicated that she did not consider that many further changes were needed to the portfolio assessment. However, she saw the bigger issue as the need to have the business internship championed within the business degree:

I wouldn't muck about with it [portfolio assessment], maybe just a few brush ups because it's strong now and you look at the outcomes and I think they're very good. My focus would be now moving on to the circle of influence around the internship.

I think the biggest task is to get a programme director in place who actually understands [the course] and who leads and supports it. I'm not saying [the current programme director] doesn't do this, I'm not saying that at all, but I think that programme directors [generally] need to be champions of teaching and learning in their programmes, not administrators. To do that they need to be trained and that's where I think the emphasis needs to lie.

While the amount of work involved in preparing the portfolios was not identified as an issue by students, it was acknowledged that students do put a lot of work into the portfolios and that the assessment burden may be high for some. Alice felt the portfolio model would work even better if the course had more credit value. In addition to increasing time for students to complete their portfolios, it also would have a number of additional benefits, including increasing the time students could spend in the workplace, which would improve the learning experiences and outcomes for students, and a likelihood of increased resources for the course, which in turn would facilitate improvements to student support and supervision. However, Alice also felt that student workload was largely related to the skills and competencies they had previously developed in the degree prior to undertaking the business internship:

I'm very aware that students come to this course cold and a lot of the preparation could be done at Levels 5 and 6 [i.e., years one and two of the business degree]. That lack of integration in the degree really shows up in the internship. In too many of those skill-sets, students are arriving cold - reflection, goal setting, effective participation. We're not developing interpersonal skills sufficiently at these levels and you see that in the fact that many of those personal and professional learning goals were set almost exclusively around interpersonal issues.

More effective integration into the business degree was also seen as enabling students to develop their portfolios earlier with the aid of new and emerging technologies:

Students could identify much earlier their pre-experience, post-experience, preparation [needed] for the placement experience, and assessment modelling, before they produce their portfolio. I think the integration of technology can be extremely useful for this. [For example] the ability to blog, use wikis and connect with others ... [and] collate their experiences in different ways. These tools are very much where the world is going and we can be right on that cutting edge, so there are a lot of positives. I also believe the skill-sets that we're teaching [in the business internship] about managing your own performance, reflecting on your own career, [fit well] with these tools of the future.

7.3.7 Presentation of stakeholder evaluation to the business degree programme committee

As outlined in Chapter 6 the introduction of the business internship portfolio assessment included the need to seek stakeholder feedback, with a summary being presented to the business degree programme committee at the end of the year. Details of the feedback from the presentation of the stakeholder evaluation are provided here.

Nine senior staff members attended the programme committee meeting, including Alice. Six of the nine academics present had supervised students during the year, so had experience of the portfolio assessment. Two academics were also part of the School's four-member management team, one of whom had supervised students in semester two. Prior to the meeting Alice and I had discussed the findings briefly, and she was aware that that the feedback from the stakeholders was generally supportive. She was confident the portfolio assessment model would be approved and was therefore keen to use the limited time available at the meeting to generate discussion on some of the more contentious issues identified by workplace hosts, academic validators and herself. These included:

- Workplace host concerns expressed with the:
 - knowledge and skill deficiencies in students; and
 - communication between Takahe and themselves
- Resourcing of the internship (including its credit value)
- Having a smaller team of well-trained supervisors
- Improved development of students' generic competencies (particular communication and inter-personal) earlier in the degree
- A greater focus on student engagement in the learning process in the degree (for example, better use of technology and an increase in self and peer-assessment)

I agreed to try and present the analysis of findings as quickly as I could in order to maximise time for discussion. However, it was felt that there was likely to be insufficient time to have any lengthy dialogue on the issues raised by Alice. Nevertheless, Alice felt that if the issues got raised at the meeting this would enable further dialogue to occur in subsequent meetings.

A Powerpoint™ presentation was given, with interactive dialogue occurring both during and following the presentation. As expected, there was strong support for the portfolio assessment and this was approved unopposed. While not all the issues identified by Alice had time to be discussed in any detail, there was agreement for the need to consider these issues in more depth at subsequent meetings. Committee members felt that a more strategic approach was needed to improve relationships with workplace hosts, which in turn would make it easier to source work placements for students, as well as improve the quality of workplace mentoring support for students. Linked to this was an acknowledgement that limited resources currently prevented this from occurring.

The programme director, Leone, pointed out that the degree was currently going through a major curricula review, including a change in credit values of all its courses. As a result it was likely that the course credit value of the internship would be increased minimally to 30 credits (from its current 18 credits), which was likely to generate more resources for the course. An increase in the course's credit value would also increase the total available student learning time (30 credits equates to 300 learning hours), enabling students to spend more time in the workplace and have more time to complete their portfolios if needed. Leone also pointed out that the curricula review included a review of the programme's graduate profile and related competencies required. This review was intended to be followed by a pedagogical review, including ways to improve students' engagement in the learning process. While only minimal discussions were had on the issue of having a smaller, well-trained group of academic supervisors, it was agreed that this issue would be included in the review process.

7.4 Chapter summary

This chapter has discussed the feedback obtained from relevant stakeholders following the implementation of a portfolio model of assessment in the business internship. Feedback was elicited during the two semester period of the portfolio's implementation, from students, academics, workplace hosts and the course coordinator. In addition, a sample of portfolios was also discussed in order to provide an indication of how the portfolio contributed to students' learning from the students' perspective.

Data collected in semester one focused primarily on the acceptability of the portfolio assessment model to the stakeholders involved. It was evident from questionnaire responses that students were satisfied with the different components of the portfolio assessment model (e.g., self-assessment, its evidence-based nature, the collaborative assessment process, and the method of grading) as well as being satisfied with those aspects of the internship that impact indirectly on the assessment (e.g., the value attributed to the internship, the organisation of the course, and the support provided by academic supervisors and workplace hosts). Similar levels of satisfaction with relevant aspects of the portfolio were evident from the feedback obtained from the questionnaire responses from workplace hosts. However, it was apparent from qualitative feedback from students and academics, and from a review of the final grading, that there was some confusion and misunderstanding with the requirements for the portfolio assessment. As a result, relevant adjustments were made to the portfolio guidelines and preparatory materials prior to semester two.

Feedback from three groups of academic supervisors at the end of semester one showed that while there was support for the portfolio, there were a few areas that generated mixed views, particularly the removal of the grades from the collaborative assessment process and the change from an 11 point overall grading system to a three point system. Despite these mixed views, most academics in the focus groups supported the changes made and commented on a number of positive aspects of the portfolio assessment and its impact on student learning. Further endorsement of the portfolio assessment's benefit to student learning was apparent from comments made at the end of semester two by academics (during a focus group), and by students and the course coordinator (during individual interviews). In addition, extracts from student portfolios provided further ways in which the assessment was perceived to have benefited student learning. While overall the findings show that the portfolio model of assessment is acceptable to the stakeholders and appears to have had a positive impact on student learning, various comments indicate that there may be some indirect, contextual factors impacting on the portfolio assessment, such as student preparation, academic supervision, workplace host communication, and resource issues, which may require attention. Chapter 8 discusses the findings in further detail, particularly in relation to the literature discussed in Chapters 2, 3 and 4.

Chapter 8

Discussion of findings

This study set out to answer the research question: How can a student's workplace performance and learning be assessed appropriately within a business internship course? Chapter 6 discussed a portfolio model of assessment that was developed to address this question. This model was administered over a two semester period through an intervention in a practice setting, and feedback on the implementation of the model was gathered from the stakeholders involved (provided in Chapter 7). Discussion of the findings from this feedback is presented here, by considering acceptability of the assessment to the stakeholders involved. Attention is then given to the findings in relation to the key theoretical issues outlined in Chapter 5 that were drawn from the literature review in Chapters 2, 3 and 4. It is recognised that there is some overlap between the purpose of assessment discussed in Chapter 2, and the theoretical issues discussed in Chapters 3 and 4. For example, a purpose of both formative and summative assessment is to contribute to learning. Different theories of learning informing assessment in cooperative education were then discussed in Chapter 4. Similarly, discussion of criterion referencing in Chapter 2 included the need to address issues of validity and reliability, which were then discussed in Chapter 3. The findings are therefore discussed within three sections: *Stakeholder acceptability of the business internship portfolio model of assessment*, *revisiting validity and reliability*, and *the consequences of the business internship portfolio model of assessment for learning*. The chapter concludes by reviewing the significance of the findings and the contribution this thesis makes to the literature.

8.1 Stakeholder acceptability of the business internship portfolio model of assessment

Feedback from stakeholders on the portfolio assessment model was gathered over a two semester period. The feedback sought differed according to the stakeholder group; reflecting their role in the assessment and the areas of likely interest to them. In determining the acceptability of the model, attention was given to four key areas:

- The adequacy of student preparation for completing the portfolio, particularly the value of the class sessions, the materials provided and the on-line support given;
- The support provided by the workplace host and the academic supervisor during the placement;
- The collaborative assessment process, particularly its relevance to student performance and learning, and its value and acceptability to the three parties involved; and
- The requirements and overall acceptability of the portfolio model, including the relationship between its different components and its perceived fairness.

In considering the first area, it was apparent from feedback in semester one that both academic supervisors and students experienced some uncertainty and confusion with the requirements of the portfolio. Changes were consequently made to relevant preparatory materials and workshops. Subsequent feedback from student questionnaires in semester two indicated overall satisfaction with this component. Importantly, while several comments were made by students in semester one relating to improvements in portfolio requirements, there were no comments made on this in semester two. Feedback from academics in the focus group suggested that there was greater awareness, among academics and students, of the portfolio requirements in semester two. Academics related this to the perceived improvement in the quality of the portfolios in semester two. This was also supported by the fact that no portfolios had to be resubmitted due to missing documents, unlike semester one when over half of the students were required to resubmit their portfolios for this reason.

Students indicated high levels of satisfaction with the supervision and mentoring support provided by employers and academics in both semesters. However, academics (supervisors and the course coordinator) considered improvements to student learning could be made if there was a smaller team of better trained academic supervisors. This is discussed further in Section 8.2.

The collaborative assessment process was supported in different ways by all the stakeholders. Quantitative data obtained through feedback from

questionnaires indicated that students and employers considered the process to be valuable, appropriate and fair. The key change made to the collaborative assessment process (i.e., removal of the marks) was intended to reduce the tension between formative and summative assessment. A process of this nature is unlikely to remove all the apprehension students may feel given that ultimately what is said at the meeting and written on the forms still has some impact on their final grading. However, there was no indication from the qualitative data (i.e., questionnaire comments, interviews and a review of portfolios) that this was a concern to students. This is perhaps a result of the emphasis placed on the ‘long conversations’, which was intended to ensure that students had a reasonable idea of how they were performing prior to the collaborative assessment meeting, thereby minimising such anxiety and any surprises by what might be said by employers. It was also apparent from academic supervisors’ comments that all parties wrote more on their collaborative assessment forms than they had done in the pre-intervention assessment (including areas for improvement), suggesting that students were not afraid to expose their weaknesses.

It is recognised that some academics did not support the removal of the marks, even though there was recognition that improvements in feedback to students had resulted (this is discussed further in relation to *systemic validity* in Section 8.2). To some extent, these academic views were not unexpected. For instance, the removal of the marks puts sole emphasis on the written comments and the dialogical process. In practice, this means that the employer and the student will have more to say, with the academic largely taking a facilitative role. This may have been viewed by academics as reducing their power and control, something which is exercised by academics in most traditional forms of assessment (Boud, Cohen & Sampson, 1999, 2001), and a symptom of the hierarchical relationship between the teacher and the student (Gipps, 1999). Pryor and Crossouard (2008) consider that issues of power are related to teachers’ identities “and what counts as legitimate knowledge is framed by institutional discourses and summative assessment demands” (p. 1).

The removal of the marks also gives greater responsibility to the student, as their comments, supported by the evidence they present, become a more important feature of the collaborative assessment process. Thus arguably power in

performance assessment becomes a more shared concept, with a greater focus on dialogue and consensus, in order to arrive at the 'truth' (Fish, 1980; Guba & Lincoln, 1989). According to Gipps (1999) sharing power in this way "will require a shift in the established equilibrium" (p. 380). This was perhaps an implied aspect of the strong views expressed by Rick at one of the academic supervisor focus groups in semester one, who felt disappointed by the removal of the marks "because there was nothing to talk about". Alice felt that the change in power and control extended beyond the assessment process, suggesting that some academics were uncomfortable with "the variability of placements and organisations [and a realisation] that students are having far more challenging experiences beyond the classroom". A further area in which mixed views were expressed by academics was whether employers were providing honest comments at the meeting. This issue is discussed further in Section 8.2.

While acknowledging that some reservations were expressed by a few academics, stakeholder feedback suggests there is strong support for the portfolio model of assessment. Quantitative feedback from questionnaires in both semesters indicated that students considered the portfolio assessment process to be appropriate and fair. The different components of the portfolio were also supported by students, including the collaborative assessment process, the learning and development focus of the portfolio (this is discussed further in Section 8.2 and 8.3), and the overall three-point, competency-based grading process, although it is recognised that when interviewed two students felt the requirement for a Merit Pass was set too high for them. While employers were not involved in all aspects of the portfolio assessment, as outlined earlier they were supportive of the assessment component they were involved in (i.e., the collaborative assessment component). They also made some comments about how the overall business internship could be improved, and these are discussed further in Section 8.2. In addition to comments made about the marks being removed in the collaborative assessment process, some academic supervisors had reservations about the move from an 11 point to a three point grading system. Again, to some extent this was not a surprise given that the 11 point system was something academics were used to, being the grading system used in all other business degree papers. It is also recognised that a number of academics are likely to subscribe, consciously or unconsciously, to behavioural theories of learning

based on positivist ontological and epistemological views (Shephard, 2000). Such views typically subscribe to a more precise measurement of achievement, in order to emphasise achievement differences between students. This was apparent in Phillipa's views:

In my mind there's a lot of difference between an A+ student and a B+ student, but [in the new system] it could possibly be that those students both get a Merit Pass. [Similarly] a B-student and a C- student could both end up with a Pass.

It is recognised that traditional views of teaching and assessment can result in entrenched attitudes among academics which are difficult to change (Entwistle, 1996). Nevertheless, despite some reservations, academic support was apparent when the business degree programme committee, which included several academics who had supervised business internship students in the preceding two semesters, unanimously approved the portfolio assessment model following the researcher's presentation of stakeholder feedback.

In conclusion, the findings indicate that there was strong overall support from all stakeholders for the portfolio assessment model. For Alice, the portfolio had demonstrated its value and support, and she felt that the priority now was to focus attention on "the circle of influence around the business internship". This issue is discussed further when considering the issue of systemic validity in Section 8.2.

8.2 Revisiting validity and reliability

As discussed in Chapter 6, it was intended that the portfolio assessment model would attend to issues of validity and reliability, particularly those issues considered to be problematic in the pre-intervention assessment. In recognising the complexities involved in cooperative education, a more 'common sense' approach to validity of work performance was taken. Thus content validity and construct validity were viewed in a more pragmatic way, in order to take cognisance of the situated nature of work and the contextual factors involved. These are discussed briefly here. Consequential validity is concerned with the impact of the assessment on learning. Given the multi-dimensional aspects of

learning discussed in Chapter 4, the consequences of the portfolio model of assessment on learning will be discussed separately in Section 8.3.

As noted in Chapter 5, content validity (measuring what is intended to be assessed) has to take account of the fact that the business internship's learning outcomes would need to be sufficiently broad in order to capture the range of learning that can occur in different contextual settings (as advocated by Hussey & Smith, 2003) and in the different communities of work practice (Eames, 2003), while also ensuring those competencies deemed important by business employers featured in students' performance assessment. Given only minor changes were made to the learning outcomes and to the competency statements (in the collaborative assessment guide), no feedback was sought directly on these changes from academic supervisors or students. However, given that the competency statements were based on employers' views from prior research, a question relating to these was included in the questionnaires administered to employers (which is commented on in the previous section and again when discussing *fairness* in validity). The overall criteria and evidential requirements for the portfolio were an explicit component of the assessment model, which were included in the portfolio assessment guide, and discussed in Chapter 6. Stakeholder feedback on this was sought in relation to acceptability of the portfolio assessment model itself, which was discussed in the previous section.

When considering construct validity (the extent to which one can infer certain constructs from the performance) it was argued in Chapter 3 that this was best achieved by making this a joint responsibility of the student and the assessors, rather than the sole domain of the workplace or academic assessor. This influenced the portfolio assessment model outlined in Chapter 6, with emphasis placed on the dialogic process ('the long conversations') both during and immediately following the placement; thus maximising the opportunities for discussing inferences taken from performance and learning. Construct validity is also built into the summative grading process by ensuring multiple views of the evidence are considered, with students' self-assessment being moderated (or validated) by academics. Therefore, construct validity is not discussed here separately in relation to the findings; rather it is featured in different ways throughout this chapter, reflecting the constructivist nature of the model itself.

This section will therefore discuss the findings in relation to the remaining aspects of validity and reliability, including: concurrent validity (having an independent assessment of the performance), fairness (ensuring assessment does not advantage or disadvantage an individual student or group of students), systemic validity (improving those practices that contribute to the learning being assessed), and efficiency/economy (the assessment practices are affordable and sustainable).

8.2.1 Concurrent validity

Concurrent validity is concerned with having an independent assessment of the same or similar task/activity that verifies the performance and related competence (Bennet, 1993; Gipps, 1994). According to Benett (1993), in work-based learning this can occur when students' self-assessment of performance is verified by the 'expert' workplace assessor (i.e., the employer). As with construct validity, this occurs in the business internship course as part of the on-going 'long conversations', as well as the collaborative assessment process. As noted earlier, validators at the focus group in semester two considered that there was more consistency in the views expressed by the three parties at the collaborative assessment meeting on student performance. In addition, employer responses from the questionnaire indicated that they were satisfied with the process used to assess the students' performance, and viewed the face-to-face approach to assessment as valuable.

8.2.2 Fairness

When moving student learning into the workplace and away from the structured environment of the classroom and a prescribed curriculum, it was argued in Chapter 2 that a criterion-referenced summative assessment process becomes problematic. This is because the work tasks and activities that students undertake on placement are all different, and that each workplace will utilise, consciously or subconsciously, their own performance standards, which are embedded in the day-to-day work tasks and activities (Hodges, 2006). Thus conventional ways of approaching summative assessment of student performance through criterion-referencing are difficult to achieve, and arguably impractical, in

cooperative education. Importantly, the subjective nature of performance assessment makes it very difficult to achieve *fairness* in validity if a strict criterion-referenced approach is taken. It has been argued that *fairness* involves paying attention to equity in ways that ensure that there is “comparable validity across individuals and groups” (Shephard, 2003, p. 175). Gipps (1999) argues that certain conditions should be in place to assure equity and fairness in assessment:

Interpretation of students’ performance should be set in the explicit context of what is or is not being valued. This requires that there be an explicit account of the constructs being assessed and of the criteria for assessment, which should be available to both teachers and students. (p. 366)

To address these issues of fairness, changes were made to the pre-intervention assessment practices. First, changes were made to the collaborative assessment guide to ensure the inclusion of those competencies deemed by business employers as being important for new graduates. Second, greater emphasis was given to formative assessment and the developmental aspects of work performance. Not only did this include the removal of the marks, as discussed in Section 8.1, it also included students taking greater responsibility for identifying the standards employed in the workplace related to their performance, requiring them to engage in on-going dialogue with employers and workplace staff. Nicol and McFarlane-Dick (2006) consider that effective formative dialogue involves students engaging in internal feedback (self-monitoring of their progress towards their goals and work objectives), and external feedback (obtaining views of others on progress and performance expectations).

Questionnaire responses from students in both semesters indicated, in different ways, that the collaborative assessment component met the issue of fairness in validity. For example, students felt that the business internship had improved their knowledge of the workplace and employer expectations. In addition, they felt that they had collected relevant and sufficient evidence to support their self-assessment of performance prior to attending the collaborative assessment meeting, and were confident their self-assessment would be confirmed by the host sponsor and academic supervisor. Furthermore, as mentioned earlier, students considered that the feedback they received at the collaborative assessment meeting was valuable and fair. It was also observed by validators at

the focus group in semester two that there was more consistency in the views expressed by the three parties at the collaborative assessment meeting. Feedback from employers indicated that they were satisfied with the work completed by the students and that the performance and competency statements in the collaborative assessment guide are appropriate and fair. These views taken together suggest that students were better prepared for the meeting, and that the emphasis placed on the on-going dialogue between the three parties during the placement is likely to have contributed to the high confidence levels of students going into the collaborative assessment meeting, and the subsequent convergence of views of the stakeholders during the meeting. This formative, dialogical component (the ‘long conversations’) was an important feature of the changes made to the pre-intervention assessment, particularly in encouraging students to initiate regular meetings with the host sponsor. Finally, in respect to fairness of the other assessment components, as noted in Section 8.1, questionnaire responses in both semesters showed that students considered the overall portfolio assessment process to be appropriate and fair.

8.2.3 Systemic validity

Systemic validity is important in all forms of assessment, as it is concerned with the extent to which the wider educational aspects of curriculum and pedagogical practices change in order to improve the learning that the assessment is designed to measure (Frederiksen & Collins, 1989). There are a number of related issues that come out of the findings regarding academic supervision that impact on *systemic validity*. It was evident from stakeholders that goal setting was an area where further attention was needed. At the focus group in semester two, academic validators identified this as an area for improvement of the portfolios. When reviewing a sample of portfolios it was noticeable that most students were confused with important components of goal setting, particularly the clarity and specificity of their goals, and what they understood as ‘strategies’ (for meeting their goals) and ‘performance measures’ (to determine whether they achieve their goals). At her post-semester two interview, Alice noted that although goal setting is part of the pre-placement workshops and is included in preparatory materials, responsibility for reviewing, finalising and supporting each student’s placement goals had been devolved to academic supervisors when the

portfolio model was introduced. She felt that spreading this responsibility across a large number of academic supervisors had reduced the quality. Having a large number of supervisors is also likely to have impacted on the concerns employers identified with the quality of the communication between them. Finally, a comment was made by an academic supervisor at the focus group in semester two that some employers may still be uncomfortable giving honest feedback to students at the collaborative assessment meeting. It was felt by others that if this was the case, this was likely to be a training issue for academic supervisors, as this could be resolved by the way academics approach and facilitate the discussions. Both academic validators and supervisors felt that having a large number of supervisors is likely to produce variability in quality, perhaps best summed up by Carla, “Just because you do well in the [discipline] subject doesn’t mean you are a good teacher, just because you are a good teacher does not mean you are a good mentor or supervisor”. Alice and many of the academic supervisors considered that a smaller team of well trained academic supervisors would improve the quality of supervision, which in turn would improve student learning. The ways in which student learning may benefit from this are considered further in Section 8.3.

In addition to academic supervision, systemic validity must also consider the impact of the support and mentoring provided by the employer. As mentioned earlier, employers felt there was a need to improve the communication from the Takahe Polytechnic. Given that academic supervisors have primary responsibility for this, it is apparent that a smaller team of well trained supervisors will be able to attend to this. Furthermore, this may create the opportunity to develop a range of communication and relationship strategies that could strengthen and maximise student learning in the workplace. For example, attention could be given to enhancing the mentoring capacity and commitment of employers, thereby strengthening the support given to students ‘in-situ’. Such relationship building may also increase employer willingness to accept students in future semesters, thereby providing the opportunity to reduce the inevitable variability in the quality of learning opportunities provided.

A further systemic validity issue impacting on student performance and learning is the relationship between the business internship and the business

degree programme as a whole. This link was made by Alice who considered that there were limitations in the level of improvement in student learning and performance that the business internship could manage alone. For example, she was mindful, although not surprised, that both students and employers had identified communication as an area of improvement for students. She considered that there was an insufficient link between the skill sets required of students for the business internship and the skill sets they acquired elsewhere in the business degree:

In too many of those skill-sets students are arriving cold - reflection, goal setting, effective participation. We're not developing interpersonal skills sufficiently at these [earlier] levels and you see that in the fact that many of those personal and professional learning goals were set almost exclusively around interpersonal issues. The need for students to improve their communication skills, identified by both students and employers, is beyond the scope of the business internship.

These concerns with lack of integration are consistent with the views of Mentkowski and Associates (2000), who argue that if pedagogical practices, such as assessment, are to survive there needs to be consistency and coherence across modules and courses. Alice identified different ways of addressing this, including enhanced support and leadership from the programme director. However, she noted that the role of programme directors within the institution was itself a systemic problem, as their administrative responsibilities tended to be very high. The importance of gaining support for an internship when it is a small component of an overall degree programme is something noted by Wessels and Jacobsz (2008), who point out that many internships fail because “the driving force was but a single person with limited influence” (p. 6). The support for the internship also needs to address what Boud and Falchikov (2005) refer to as the ‘systemic barriers’ that are present when trying to move the assessment agenda from current learning to long-term learning, and from summative assessment to formative assessment. According to Boud and Falchikov an important barrier is the “unreflective baggage of lecturer’s experience of norm-referenced assessment from their time as students” (p. 39), which can marginalise the attention needed for the ‘learning how to learn’ skills (e.g., critical reflection). One could add that this may also marginalise the important generic and behavioural skills such as oral communication, interpersonal relationship management, and goal setting.

8.2.4 Efficiency/economy in validity

Efficiency/economy in validity is concerned with whether the assessment is affordable, implementable, and sustainable (Messick, 1989). During the validators' meeting in semester one Carla associated the large number of supervisors with the business school's declining resources, indicating that it helped the school to balance staff workloads. Thus, while systemic validity may be enhanced by having a smaller team of specialised and well-trained supervisors, the economic situation of the school becomes a factor in whether this is viewed as being achievable. Following the presentation of the stakeholder evaluation to the business degree programme committee it was stated by Leone (the business degree programme director) that the credit value of the business internship was likely to be increased following the review of the business degree programme, enabling greater resources to be allocated to it. This combined with the fact that the number of specialist papers was expected to be reduced, meant that there is potential to create a smaller team of specialist supervisors.

Important issues that impact on the availability of resources are the prevailing pedagogical and curricula approaches employed. For example, Knight (2002) argues that there is an increased focus on summative assessment for accountability purposes (e.g., by government agencies) which puts pressure on educational institutions to focus almost exclusively on summative assessment, particularly reliability, at the cost of formative assessment (and the validity of what is being assessed). In turn, academic staff time is disproportionately spent on summative assessment, thereby increasing workloads. However, he points out that educational institutions fall into the trap of thinking that such "rationalist, low-trust, risk-averse approaches [to assessment]" (p. 278) are the solution. He argues that such approaches are in fact counter-productive, because they fail to pay adequate attention to student learning (in the broadest sense). Thus "summative assessment systems cannot provide the robust performance indicators upon which they depend ... [and therefore] control, accountability and legitimacy are all compromised" (p. 278).

Paradoxically, the problems identified by Knight (2002) may actually provide the impetus for addressing systemic validity and efficiency/economy in

validity in the business internship in the future. It is likely that external quality assurance agencies will focus increasingly on accountability of student achievement beyond a focus on acquisition of discipline knowledge, and incorporate the broader competencies required of graduates. For example, in New Zealand accountability of higher education providers has recently moved away from external 'audit' to a process of self-assessment and external evaluation and review, whereby external evaluation is focused more on reviewing (or moderating) the education provider's self-assessment. A key feature of the self-assessment is that educational providers are expected to focus more on 'outcomes', which includes "the extent to which TEOs [tertiary education organisations] systematically determine and address the needs of learners, employers and the wider community" (New Zealand Qualifications Authority, 2009, p. 6). Thus increased attention to a programme's graduate profile, and the related behavioural competencies, is likely to emerge. One can also see a parallel between an 'institutional self assessment-external evaluation and review' approach and a 'student self-assessment and academic evaluation' approach. Thus Alice's comment that the portfolio assessment model could be extended beyond the business internship to the business degree in a more holistic way, not only fits well with such a concept, but has the potential to enhance the learning and development that students' derive from the business internship. Knight (2002) also notes that a whole-programme approach to learning and assessment, rather than a module- or paper-level approach, is also likely to reduce costs.

While increased resources and changes in external accountability measures may create the conditions for a shift in pedagogical approaches used in the business degree, an equal shift in the mindset of academic staff may also be needed. As mentioned earlier, some staff may find it difficult to let go of traditional approaches to teaching, learning and assessment which are teacher-controlled, based on a generic approach to learning outcomes. According to Keating (2006), a move to individualised learning (e.g., captured through portfolios), creates a "radical challenge for the traditional university teacher who is used to striving for standardisation of both task and marking" (p. 22). Pedagogical changes will need to be based on shared goals and understandings, and common practices (Lave & Wenger, 1991). Buysse, Sparkman and Wesley

(2003) point out that this is not an easy task, particularly if “the learning needs and the task are not perceived as legitimate by all participants” (p. 274).

8.2.5 Reliability

Reliability is concerned with ensuring that the assessment method employed is accurately measuring the skill or attainment it is intended to measure Gipps (1994). Accuracy, and therefore strict reliability, is considered to be a relative term as it originates from a norm-referencing environment associated with tests and exams (Mehrens & Lehmann, 1991; Messick, 1989). In Chapter 3, it was argued that student learning and performance in cooperative education involves a high level of complexity. For example, students undertake variable work tasks and activities, at different levels of difficulty, within multiple worksites. In addition, performance of these tasks and activities is influenced by multiple employers and workplace staff, who bring with them their own biases, based on their own past experiences, knowledge and skills. For these reasons it was argued that a different approach to reliability was needed. This includes viewing reliability as a ‘goodness of fit’ exercise (in matching the evidence against the criteria), seeking multiple views of performance (including that of the student), and engaging in relevant dialogue with the student in order to address any uncertainties.

In relation to work performance in the business internship, reliability is addressed through the collaborative assessment of performance. In effect, the dialogue among the three parties places emphasis on creating a collective view of performance and development, with any potential biases subject to challenge by other parties (either at the meeting itself or, if necessary, following the meeting). By removing the marks from the process any bias or ‘power’ issues are likely to be reduced, as the emphasis is placed on views of performance supported by examples, rather than a simple allocation of marks (which may obscure any bias). Such dialogue is also able to attend to what Black (1998) refers to as “the reasoning behind strategies, tactics and interpretations that may not be clear from the ‘product’, and in some cases the processes involved” (p. 89). Of note, is the fact that from the questionnaire feedback it was evident that students felt well prepared going into the collaborative assessment meeting, were satisfied that the

feedback received at the meeting was valuable and fair and, as mentioned earlier, academics considered that there was more consistency in the views expressed by the three parties at the meeting.

In considering reliability in relation to the learning that is derived from students' experiences, the dialogue around students' experiences is a key feature of the 'long conversations' that students have with their academic supervisor. This dialogue revolves around the students' weekly learning journals that are intended to capture their reflections on experiences during the placement. These journals become the basis for students' reflections-on-reflections at the end of their placement. Comments made by students during interviews in semester two confirmed how each student's placement experience was unique, demonstrated by a wide range of learning identified through students' reflections on experience. This was also noticeable when reviewing the portfolios, which showed that all students had made connections between their own prior knowledge, experiences and competencies, and their placement experiences. Of note, was a comment made by Carla (an academic validator). She observed that while these unique learning experiences resulted in different qualities of work, she considered each learning experience to be valuable, as it "enable[s] people [to] rise to their own level of ability ... So each one is adding value through their learning experience ... and the portfolios allow that experience to come through". In effect, Carla was using a 'goodness of fit' argument by suggesting that the evidence presented by each student will inevitably be unique to them, based on their unique experiences.

A key feature of the portfolio is that it is evidence-based, compiled by students to match the given criteria. The students determine themselves the extent to which they believe they have met the criteria, either for a Pass or Merit Pass. This self-assessment process, referred to by Brown and Knight (1995) as self-grading, is subject to the moderation (or validation) of academics that occurs through a two stage process. First an academic (but not the student's supervisor) reviews the material provided in the student's portfolio, and consider this against the criteria. If they concur with the student, the self-assessed grade stands. If not, the portfolio is subject to a further stage of moderation in which an independent team of academics review the portfolio evidence again. In effect, potential individual academic bias is minimised (thereby also contributing to fairness

discussed earlier), as a student's portfolio is potentially subject to review and moderation by several academics.

In reviewing the self-assessed grades against the moderated (validated) grades it was apparent that in semester one there were considerable differences, indicating overall that student's self-assessment might be said to be unreliable. However, changes to the guidelines in semester two, together with greater awareness of the portfolio's requirements among both academic supervisors and students saw a noticeable change in semester two. Here 76% of self-assessed grades were reliably self-assessed (i.e., were validated by the academics). It is difficult to determine the extent to which this level of accuracy in self-assessment can be said to meet issues of reliability. For example, in their review of the literature regarding the accuracy (or reliability) of self-grading, Boud and Falchikov (1989, 1995) noted that in situations where the marks count (i.e. for summative purposes), five of seven studies reviewed found that students tended to overrate themselves. In this study, only 20% of students (in semester two) overrated themselves. Of course, given the high stakes involved, it is likely that there will always be some students who will seek the highest possible grade, regardless of the adequacy of the evidence to support it. It is also recognised that the numbers of students involved in the business internship is relatively low, and that the portfolio has only been in place for two semesters. Thus, some caution needs to be used in drawing any conclusions from the findings so far.

8.3 The consequences of the business internship portfolio model of assessment for learning

In Chapter 2 it was stated that assessment should contribute to students' learning (i.e., formative), as well as enabling evaluative judgements to be made for certification purposes (i.e., summative). In practice, the two purposes are viewed as being points on the same continuum, with both expected to contribute to student learning and development (Brown, 1999). The contribution, or subsequent effect, of the assessment on learning, is referred to as *consequential validity* (Messick, 1989; Linn, 1993). Boud (1995b) considers this to be high "when there is a positive backwash effect on learning" (p. 37). This section

therefore considers the findings in relation to the consequences of the portfolio assessment for learning.

The portfolio assessment model was viewed by stakeholders as contributing to student learning in different ways. Questionnaire feedback in both semesters showed that the business internship was viewed by students as contributing to both their personal and professional development. This was also observed by employers, who considered that the internship had contributed to students' development and work experience. Questionnaire responses also indicated that the portfolio assessment process was viewed by students as making an important contribution to their learning. For example, students considered the portfolio's self-assessment process to be a valuable learning experience. In addition, from comments made by students during interviews it was apparent that they particularly valued the reflective learning journals and goal setting, the latter contributing to the importance of 'purposeful action' identified by Dewey (1938). A review of a sample of portfolios showed that through reflection students were able to identify a range of important learning experiences, both personal and professional. This was also apparent during the student interviews. For example, Ashmita saw this as helping her to recognise the importance of "asking questions", while for Aija reflection, through the use of weekly learning journals, enabled her to express her feelings and emotions that she found helpful for identifying what she had learned when later reflecting on her placement experiences. Essentially, there is evidence to suggest that the portfolio assessment model has had a positive 'backwash effect' on student learning. Further ways in which this learning has been evident is now considered in relation to metacognitive development, sustainability, and sociocultural influences.

8.3.1 Contributing to metacognitive development

In recognising the inherent tensions between formative assessment and summative assessment, and between validity and reliability, the portfolio model of assessment puts particular emphasis on students' formative development. As noted in Chapter 6, the collaborative assessment guide was amended in order to ensure the inclusion of the cognitive and behavioural competencies viewed as being important for performance by business employers. Furthermore, the

removal of marks from the collaborative assessment of students' work performance is intended to encourage greater attention to qualitative feedback, thereby providing students with more detailed information on their achievements and future development needs. Of importance in this was a recognition that students needed to have a greater awareness of themselves, their thinking processes, and ultimately their strengths and weaknesses; all important contributors to students' metacognitive development (Flavell, 1976). Questionnaire responses indicate that students felt that as a result of completing the portfolios they were more able to understand themselves and the way that they learn. Academic supervisors supported this view. For example, in a semester one focus group Alan felt that the connections students have to make between their pre-placement CV, their reflections on their experiences, and the updating of their CV, contributes to their understanding of themselves in relation to their future career and professional development needs. Comments made by several academics at the focus group in semester two suggest that the increased focus on the important workplace competencies in the collaborative assessment process is also likely to have contributed to students' cognitive development. For example, Vanessa considered that the removal of the marks "forced [the students] to think more about what areas they were good at, strong and weak at, and which ones to develop". Furthermore, Alice noted in a separate interview that she had observed that greater attention had been paid to the competency statements in the guide "resulting in an increase in the quantity and quality of comments made ... By taking the marks away you've put people into the frame of that competency guide".

A further contributor to metacognition is students' confidence in their ability to perform competently, which Bandura (1997) refers to as self-efficacy. In the questionnaire feedback students considered that the business internship had assisted both their professional development and personal development. This was also evident in students' qualitative comments, from which a common theme to emerge was self- and skill-development. Questionnaire feedback also identified that students considered their self-confidence had improved as a result of their placement experiences. They also said that the portfolio had made them more confident self-assessing their competencies as well as their work performance. It is recognised that self-confidence has a slightly different meaning to self-efficacy,

but in connecting students' improved confidence with their increased awareness of those competencies considered important in the workplace, and their view that their knowledge of workplace and employer expectations had improved, this suggests that an improvement in students' self-efficacy is likely to have occurred, thereby contributing to their 'practical intelligence' (as defined by Sternberg & Wagner, 1986) as well as their 'conditional knowledge', of key importance to metacognition (Biggs, 2003). It can also be noted that the combination of self-evaluation of competencies with good workplace mentoring (discussed earlier), can further enhance students' self-efficacy (Coll, Lay & Zegwaard, 2002).

Experiential learning, reflective practice, and constructivist theories discussed in Chapter 4, emphasised the contribution that self-reflection can make to metacognitive development. For example, Flavell (1976) considers that metacognition involves getting to know one's own cognitive processes, while Mezirow (1990) consider that critical self-reflection is necessary in order to reach one's transformative potential. In acknowledging Piaget's work on the potential disequilibrium that can occur for students when experiencing new situations - such as undertaking work placements - Winter (2003) argues that "students need time to digest their learning and to *make sense of it* [original emphasis]" (p. 120). Importantly, as reflective practice is new to students, students will require effective support from others if they are to view their experiences through a different lens (Kegan, 1994). In relating these theories to the findings, a common feature of students' learning journals when reviewing students' portfolios was their gradual *coming to know*. They moved from descriptive writing in the early weeks, to reflective writing in the later weeks, as they began to question their experiences and take greater notice of things around them. The cognitive change was also noticed by academic supervisors. For example, Sam felt that "by the end you have a different student and that's the idea I think". Phillipa put this change down to the value of the supervision process:

Sometimes the initial [learning journals] are not reflective and this is where the value is of either meeting with them face to face or emailing back with your comments because you can say "yes, it's fantastic, you've told me what you have done, but how did you feel about it" or "what did you learn from making that mistake" or whatever.

8.3.2 Sustainability through self-assessment

An important contribution to metacognitive development is developing students' capacity to self-assess their work (Biggs, 2003). Such development will also enhance their capacity to become lifelong assessors of their own learning, an important sustainable assessment practice (Boud, 2000). As described in Chapter 6, the portfolio assessment model is purposely set up as a self-development model intended to contribute to students' development as lifelong assessors of their learning. It is intentionally cyclical in design, with its final phase being future-focused. While the internship provides a single cycle, the different components of the assessment model, involving competency awareness, goal setting, CV development, on-going dialogue (the 'long conversations') on performance, and reflections on learning and development, are all inter-connected and continuous activities that can be used throughout a graduate's career.

Student feedback suggests that the portfolio model has contributed to their capacity for assessing their own performance and development needs in the future. Responses from the questionnaires showed that students felt that the portfolio's self-assessment process was a valuable learning experience and, as indicated earlier, they are more confident self-assessing their competencies and their work performance. From the review of a sample of portfolios it was also apparent that students had set future goals that were linked to their identification of perceived weaknesses during the placement. Alice observed that this link had been made from the feedback students received at the collaborative assessment meeting. Both questionnaire and interview responses also indicated that students intend using aspects of the portfolio in the future. For example, Aija felt the portfolio helped her to become clearer about her career direction, and is now more determined to achieve it:

I really want to be in a career now ... and I think the whole reflecting and thinking about where you come from and where you want to go helped me ... I think if you don't take notice of your mistakes and keep learning from them then you can't move forward. So I actually know now what it is that I want to be, what goal I'd like to achieve for myself in terms of a career. It's made me a lot more determined. (Aija)

8.3.3 Sociocultural influences on learning

8.3.3.1 Crossing boundaries: Participatory learning

In Chapter 4 differences between communities of education practice and communities of work practice were highlighted. In order to prepare students for the workplace and future employment - an important aim of cooperative education (Coll & Eames, 2007; Groenwald, 2004) - it was identified that students would need to engage in what Engeström, Engeström and Karkkaninen (1995) refer to as ‘boundary crossing’. According to Lave and Wenger (1991), this will require newcomers, like students, to be active participants within the community of practice. Thus assessment practices need to ensure that student attention is focused on those aspects of learning that are important in the workplace, rather than the education institution, in order that they can perform competently.

Students commented on how their workplace experiences benefitted their learning in different ways. As noted earlier, quantitative feedback from questionnaires indicated that students viewed the collaborative assessment guide, focusing on competencies considered important by employers, to be very helpful. In addition, they felt that the internship had enabled them to improve their knowledge of the workplace and employers’ expectations. This is also reflected in the qualitative comments students made in the questionnaires, which suggested that the ‘real world’ learning they gained from the internship was a key feature of their placement experiences. These views are supported by employers, who expressed high levels of satisfaction with the work completed by students.

For many students, a noticeable difference between the two communities of practice was the importance of communication at work. As Jiao noted during her interview: “When [you] come to the office you [realise] how [important it is] to connect with people all the time”. The nature of these connections highlighted cultural differences, based on students’ prior experiences. For Jiao, the informality of how the ‘boss’ and the staff interact was a surprise: “In China the boss is like [at a] higher level than the employee and they just really sit in [their] office and not really talk to the staff outside”. The importance of informal communication was also evident in Xiu’s reflections in her portfolio: “From

talking with colleagues, I have learned not only a lot of ‘office language’, but also many slangs and New Zealand culture”.

It is evident from these and other comments made by students during interviews and from their portfolio reflections how the informal aspects of their workplace experiences were a key feature of their learning, supporting Billett’s (1994) observation that the informal, everyday encounters with other workers are viewed as being an important component of workplace learning. Of note, was students’ informal learning tended to focus on the social and communicative aspects of their experiences, consistent with Vygotsky’s (1978) view that the psychological tools of language are an important mechanism for individual meaning-making.

As mentioned earlier, an important feature of the portfolio assessment model is its formative and dialogic nature, with students continuously engaging with employers and academic supervisors through the ‘long conversations’. It is evident from questionnaire responses that students were highly satisfied with the quality of the academic supervision and the mentoring provided by their workplace host. It is likely that this support has also contributed to students’ learning and development, through the cultural ‘cues and clues’ that Billett (1996) considers come from *distal guidance*, and that Rogoff (1995) considers emerges from *guided participation*. Given employer satisfaction with the quality of work produced by students, together with students’ views that their placement experiences have assisted their professional development, it is also likely that the support provided to students has stretched them beyond their initial levels of competence, which Bockarie (2002) argues adds to their capacity “to engage in activities in a community of practice” (p. 63).

8.3.3.2 *Revisiting legitimate peripheral participation*

It was apparent that learning derived from the business internship was not simply about students (novices) learning through their engagement with experienced workers (journeymen). As Fuller, Hodkinson, Hodkinson and Unwin (2005) conclude from their study, experienced workers also learn from their engagement with novices (which they argue is a limitation of Lave and Wenger’s

work in this area, which focuses exclusively on the former). This expanded view of ‘legitimate peripheral participation’ was also evident in this study. For example, one workplace host (‘T’) noted that hosting new migrant students had been a valuable learning experience for their organisation which had “opened their eyes to the possibility of employing more ‘new kiwis’”. Given the number of students who received merit passes, it is also likely that they added value to the organisation in other ways (‘adding value’ is an important component of the assessment criteria for gaining excellence in work performance). Such value is likely to have contributed to organisational learning, lending support to the notion that “apprentices as well as more experienced employees may have areas of ‘knowledgeable skill’ which they are capable of sharing with others” (Fuller et al., 2005, p. 65).

8.3.3.3 Identity formation and learning

A key feature of the work of Lave and Wenger (1991) on communities of practice is the importance of learner identity. Wenger (1998) considers that this requires taking an educational view of workplace learning, rather than a training view:

Education, in its deepest sense and at whatever age it takes place, concerns the opening of identities – exploring ways of being that lie beyond our current state. Whereas training aims to create an inbound trajectory targeted at competence in a specific practice, education must strive to open new dimensions on an outbound trajectory toward a broad field of possible identities. Education is not merely formative – it is transformative. (p. 263)

A key feature of transformative learning is ‘identity formation’, which Wenger (1998) considers has two inter-connecting components – *identification* and *negotiability*. Identification involves building an identity “through an investment of the self in relations of association and differentiation” (p. 188). Association occurs through “engagement in activities and social interactions” (p. 193). Wenger notes that this also contributes to the development of competence.

Identification of competence is an important feature of the portfolio model of assessment. This occurs through the ‘long conversations’ during the internship, and through the collaborative assessment meeting at the end of the internship. It

was evident from questionnaire responses and interviews that students felt well prepared for the collaborative assessment meeting, indicating a level of understanding of their competency levels. The competency aspect of identity formation is also embedded within the social relations that occur in daily work practice. Evidential requirements for the portfolio necessitate that students demonstrate their active engagement in the workplace. An example of this is apparent in Chan's identification of the importance of the communicative aspects of daily work life: "How do you talk to people? How do you write an email or fax? Could you fully understand clients' needs? They are much related to your performance". In terms of the differentiation aspects of identity formation, Hodkinson and Hodkinson (2004) note that people always bring their own dispositions (beliefs, understandings, skills etc.) with them into new situations, such as a new community of work practice. A key aspect of learning experiences identified by many international and new migrant students was the formal-informal differences between workplace cultures in their country of origin (e.g., China) and New Zealand. Identifying such differences served to enhance student learning on what it means to be an employee in a New Zealand business.

With regard to the *negotiability* aspect of identity formation this is concerned with how we negotiate meaning through our experiences in relation to understanding ourselves, who we are and our "way of being in the world ... [This is informed by] what narratives, categories, roles, and positions come to mean as an experience of participation ... in practice" (Wenger, 1998, p. 151). Negotiation of meaning was apparent in comments made by many students. For example, Ashmita noted the need to manage staff relations according to their relative age: "You sort of have to change the way you talk [from] one person to the other. Like with the older person [it] is totally different from the younger person ... [All the older people] were sort of always open to me ... I felt it was really different if I had to talk to an older person". For Aija, whose only prior work experience was in the corporate sector, negotiating meaning and understanding of herself was apparent when realising that cultural norms within a workplace can go beyond cultural aspects associated with ethnicity:

I found myself a bit uncomfortable in some areas because I was so used to doing things in another way ... I thought I could adjust automatically because I'm Pacific, but I found that's not necessarily the case because I work so differently, and just

because I'm Pacific it doesn't mean I work in a Pacific way ...
So that was why I found out a little bit about myself and I think
that was very cool.

Identity formation through negotiation of meaning occurs not only through *participation* in a community of practice, but also through aspects of *non-participation*: “For a novice not to understand a conversation between old-timers becomes significant because this experience of non-participation is aligned with a trajectory of participation” (Wenger, 1998, p. 165). An example of the alignment between participation and non-participation is apparent in Ying's observation of cultural differences in how staff communicate at work, particularly the importance of humour. First, non-participation was apparent in her observation of the culturally-grounded jokes she experiences:

I understand the Chinese thing well, but I wasn't sure about
Kiwi Culture ... so a lot of things I don't really know.
Sometimes they're quite funny and they make lots of jokes and
things, and they would laugh and laugh ... and I don't think it's
really funny. I understand the words, I understand what they're
saying, but maybe there's something behind the language itself.
Whether it's a culture thing I don't know, but yeah, I think it's a
barrier between me and these guys.

Ying goes onto explain how this experience informed her subsequent participation: “I find people like to be happy, like to be funny, so I just try to change myself a little bit, not be too boring. I have improved, I have my own opinions, so [I engage] in some casual communication apart from work”.

Finally, Wenger (1998) notes that identity formation goes beyond the boundaries of a single community of practice. This can occur through *boundary trajectories* (making links between different communities of practice) and *outbound trajectories* (how identity in one community of practice can inform one's position in a new community of practice). These forms of trajectories were apparent in Ri's reflective experiences through his understanding of how ‘Kiwis’ do business. He notes that this will help his future career in China: “There are many joint venture businesses there ... and I can be the bridge between the Chinese company and the overseas' business because I know how western people do business and how Chinese people do business”.

8.4 Significance of the findings

8.4.1 A qualitative approach to portfolio assessment

In reviews of the literature on portfolio assessment a common feature across most disciplines is its perceived value in promoting ‘learning to learn’, particularly reflection (see Meeus, Van Petegem, & Van Looy, 2006; White & Ostheimer, 2006; Yancey, 1998), rather than as a way of assessing broader work-related performance competencies. It is recognised that portfolio assessment is being increasingly used in pre-service teaching practica, and to lesser extent in nursing practica, in ways that incorporate work performance. However, such assessment is almost exclusively based on having pre-determined work requirements, criteria and performance standards that are the same for all students, with assessment of performance being undertaken by trained assessors through in-situ observation (Coll, Taylor & Grainger, 2002; McMullen et al., 2003). As has been explained in this study, the work undertaken by students in a business internship is quite different; influenced by a range of variable and subjective elements.

While the literature shows that portfolios are being increasingly used as an assessment method in teacher practica, Meeus, Van Petegem and Engels (2009) note that “relatively few scholarly studies are available yet, due to the rather recent popularity of the tool” (p. 401). Indeed, most studies of portfolio use in other disciplines tend to view portfolios from a broader program evaluation perspective, rather than as assessment approach within a particular paper or component of the programme (as noted by White & Ostheimer, 2006). Reported studies in portfolio assessment tend to be either theory focused or practice focused, with very few taking a researched, theoretically-informed approach to one or more specific practice settings. Of the literature reporting on research in a practice setting, these tend to be comparative studies (e.g., Dysthe, Engelsen & Lima, 2007) or studies that have taken a more traditional positivist methodological approach (Johnston, 2004). As a result, most reports are focused on inter-rater reliability (see Baume & Yorke, 2002; Herman & Winters, 1994; Yao, Foster & Aldrich, 2009), despite the reported limitations of such studies (see Davies & LeMahieu, 2003; Johnson, 2008), particularly the unstated assumptions

about validity (Johnston, 2002, 2004). Very little research on alternative forms of assessment, such as portfolios, has considered issues of validity and how this is affected by contextual variables, particularly the individual nature of learning that occurs in a broad range of workplace settings. While Bennett's (1993) theoretical work provided an important pragmatic framework for viewing validity and reliability in work-based assessment, there has been little or no in-depth, field-based research that has applied this in the more complex practice settings such as those involved in a business internship.

In her extensive review of the literature in portfolio assessment Johnston (2002) concludes that the limitations of research studies in this field are likely to be caused by the philosophical framework and the related methodological approach taken. Typically, such approaches tend to be reflected in researchers' conventional views of assessment; that is, assessment requires "significant degrees of standardisation [of criteria and portfolio content] and reliability in a quantitatively consistent sense" (Johnston, 2002, p. 40). Not surprisingly, there are very few in-depth, longitudinal or action research-based studies in this field, that typically take an interpretive approach using qualitative methods. Of those taking such an approach, the research is viewed as being "too scanty and tentative to be convincing yet" (Johnston, 2004, p. 409).

This thesis has argued that conventional, positivist-influenced frameworks for considering validity and reliability in assessment generally fail to address those non-standardised, education situations where subjective, complex elements have a significant impact on student learning and performance, such as those involved in a business internship. The findings in this study have shown that assessment viewed from a qualitative perspective, where emphasis is placed on the *process* of learning through formative on-going stakeholder dialogue, can embrace the subjective nature of assessment in ways that enable the 'truth' of learner achievement to emerge, thereby addressing issues of validity and reliability.

8.4.2 Creating a sustainable assessment model

The importance of preparing students to be lifelong learners and assessors of their own competencies and development needs has been emphasised throughout this thesis. The portfolio assessment model developed for the business internship is based on students not only taking responsibility for gathering evidence of their achievements, but also assessing the extent of these achievements through self-assessment. As outlined earlier in this chapter, the findings have shown that stakeholders involved in the assessment process have been supportive and approving of the model. Importantly, evidence supplied by students for their portfolios, together with the quantitative and qualitative feedback gathered, indicate that the portfolio assessment has contributed to an increased awareness of themselves in relation to their future careers and professional development needs.

In Chapter 2, it was highlighted that lifelong learning occurs through self-monitoring and self-regulation (Boud, 1995a, Falchikov, 2005, Gipps, 1994), enabling achievement of desired goals or objectives (Brookhart, 2001; Nicol & McFarlane-Dick, 2006; Sadler, 1998). In other words, lifelong learners need to engage in on-going self-assessment (Cates & Jones, 1999), in order to become lifelong assessors. Boud (2000) argues that education has an important part to play in preparing students for this. However, he notes that this will require “a significant shift of balance” in the way assessment is approached in higher education. Taras (2002) suggests that little has been done in this regard, which Boud and Falchikov (2006) consider is related to an emphasis on *current* learning, rather than how students are being prepared for *future* learning.

Given the focus of assessment on current learning, and the strong epistemological influences in higher education in which a common position of many teachers is to see themselves as the discipline expert wholly responsible for assessing student performance (Shepard, 2000), it is perhaps not surprising that little in-depth research has been done in the field of self-assessment in relation to cooperative education. Of those studies that have considered self-assessment in cooperative education most take a restricted or narrow view of its meaning. For example, self-assessment is sometimes used as an alternative term for self-

reflection (e.g., Fitzpatrick, 1999) or, more commonly, to describe the ‘gathering of evidence’ for a portfolio (e.g., Hill, 2002, Gearhart & Osmundson, 2009). Such evidence is also sometimes used for gaining credit for prior learning through previous work experience (e.g., Brinke, Sluijsmans & Jochems, 2009; Brown, 2002). In each of these cases, the portfolio is submitted by the student for marking solely by the ‘expert’ academic assessor. The portfolio model developed in this study expands on these views by giving students primary responsibility for assessing and grading their own portfolios, with the academics taking a *moderating* role, as opposed to a *marking* role. The distinction between the two is important, as it gives the explicit message to the student that s/he must take primary responsibility for determining the level of their learning achievement and performance (and subsequent development needs). Given the relatively high correlation (80%) between students’ self-assessed grades and the moderators views of their grades in the second semester, this study has shown that, in the context of cooperative education, it is possible to empower students to take responsibility for demonstrating and subsequently grading their achievements; thereby contributing to their development as lifelong assessors of their own learning.

As with all teaching and assessment practices, the long term sustainability of the assessment model is of course subject to extraneous factors beyond the business internship. As outlined earlier in sections 8.2.3 and 8.2.4, these factors relate to systemic validity and efficiency/economy (i.e., relative costs).

8.4.3 Recognising sociocultural influences on learning through assessment

In his longitudinal study of student learning in a cooperative education programme, Eames (2003) notes from his findings that a “lack of assessment/feedback may have prevented students from fully understanding their learning during their placements” (p.278). Related to this is his observation that there are crucial differences in learning that takes place in a community of education practice and in a community of work practice. In education, emphasis is placed on “learning for understanding and development and the learner is seen as an individual acting autonomously” (p.278). In contrast, work practice places

emphasis on “learning for performance and productivity towards the organisation’s goals and the learner is seen as acting within the community” (p. 278).

The importance placed on work performance and being part of a broader community affects the type of learning students are exposed to, with Eames pointing out that if students are to maximise such learning they need to be guided. Ultimately, such guidance needs to be legitimised through assessment, otherwise it will be seen by students as being less important (Knight, 1995; Sadler, 1989). Eames also notes that “whatever assessment tool used should acknowledge the different learning environment of the workplace, and that each workplace community of practice may offer different learning opportunities” (p. 326)

This thesis has consciously taken up the challenges raised by Eames (2003) by placing emphasis in the assessment on student work performance and development (and the learning derived from this), as well as student engagement in the community of work practice. Learner guidance provided the key platform for this, being an explicit component of the portfolio assessment model. For example, evidence for achieving the learning outcomes includes the need for students to demonstrate work performance achievements, based on related competencies, as well as their active engagement in the workplace. Guidance through the ‘long conversations’ and the collaborative assessment process also served to guide student understanding of performance requirements, as well as their understanding of themselves in relation to their professional development needs. In addition, guidance was provided on the sociocultural aspects of workplace learning, which enabled students to take a broader view of learning through their on-going reflections throughout the placement (via their learning journals) and through their overall reflections at the end of their placement.

In effect, the portfolio assessment model has demonstrated its contribution to enculturating students “into their community of practice, sharing understanding about what they are doing and what it means” (Lave & Wenger, 1991). Furthermore, as outlined earlier, the nature and evidential requirements of the portfolio assessment have also contributed to students’ *identity formation*. This thesis has therefore extended the work of Eames (2003), Lave and Wenger (1991)

and Wenger (1998) into the realms of education assessment practice within a business internship – and in so doing, helping to bridge the gap between the formalised learning that occurs in a community of education practice and the informal, culturally-embedded nature of learning that occurs in community of work practice.

8.5 Summary

The findings indicate that there is strong overall support from stakeholders for the portfolio assessment model. Feedback also suggests that the portfolio model has attended to the complex issues of validity and reliability, and has had a positive ‘backwash effect on learning’.

The findings have also shown that a model of assessment can be developed that embraces work performance, as well as the learning derived from students’ experiences. By placing emphasis on the *process* of learning and by recognising and engaging with the subjective elements involved, the ‘truth’ of learner achievement is able to emerge. The model has also demonstrated that students can be empowered to assess themselves, and in so doing contribute to their development as self-regulating professionals. Finally, this study has added to the literature that considers the sociocultural nature of workplace learning, by showing how assessment can contribute to this within the context of a business internship.

The next chapter draws conclusions from the discussion of the findings and summarises how it has addressed the research question, “How can a student’s workplace performance and learning be assessed appropriately within a business internship”? In addition, attention is given to the implications of this study for educational stakeholders with an interest in assessment and learning in cooperative education. Finally, areas for further research are discussed.

Chapter 9

Conclusion

When developing summative assessment in a business internship it is apparent that the situated nature of workplace learning involves contextual complexities that create a number of challenges. This thesis has worked with the literature and the contextual influences of a practice setting in order to create a new model of assessment. This required engaging with the circumstances affecting a business internship and finding ways to overcome the prevailing issues and problems. This served to highlight many of the inadequacies of conventional approaches to meeting validity and reliability expectations in summative assessment. This was particularly apparent when considering the unique aspects of students' work and the learning derived from their experiences, and the subjective nature of performance standards in the workplace. Thus strict adherence to a criterion-referenced approach, using precise criteria with related allocation of marks, was viewed as inappropriate and ultimately invalid.

An interpretive approach was taken to the inquiry. This helped to frame and resolve the complex issues affecting the assessment practices being investigated. For example, the approach enabled conventional ways of viewing validity and reliability to be reconceived, by viewing students' performance as a constructed reality that occurs through the informed and collective interpretations of the stakeholders involved (i.e., the student, the academic supervisors and the workplace host). Such reality is strengthened by the on-going dialogue that occurs between each of the parties throughout the placement period. Thus the 'truth' of students' performance was viewed as emerging through consensus, based on an informed understanding of the subjective elements and contextual influences involved. In the discussion of the findings, it was noted that by taking a more pragmatic, context-informed approach to validity and reliability in the intervention, a model of assessment emerged that was acceptable to the stakeholders concerned, and also sufficiently robust to meet accountability requirements of summative assessment.

This thesis also considered the reported tensions between formative and summative assessment, and the concern that an increasing focus on summative assessment was occurring at the cost of formative assessment and the value of feedback on learning. To maximise the formative development afforded by a business internship, a portfolio model of assessment was created based on an integrated cycle of learning. This model focuses on creating linkages between the different stages of, and elements involved in, the work placement. From students' initial creation of their CV, through to identifying future personal and professional learning goals, attention is given to those factors that help contribute to students' preparation for professional practice. An important part of this is the 'long conversations', involving on-going dialogue between students, employers and academics. This dialogic component helped students to maximise the learning afforded by their placement experiences. Of significance, was this formative dialogue contributed to students gaining legitimacy as newcomers, recognising "they are likely to come short of what the community regards as competent engagement" (Wenger, 1998).

The creation of the 'long conversations' was also based on the view that student workplace performance cannot be viewed purely from an individual perspective, but should be viewed as being socially situated and constructed; influenced by the interactions of the student, the workplace host, work peers, and the academic, and through the messages derived from cultural artefacts. In effect, the process of learning cannot be separated from the outcome of learning. This is fundamentally different to how student performance is viewed when based on a common curriculum within an education community of practice. Here students perform independently in isolation to their peers, and are evaluated exclusively on the outcome. Indeed, if students received formative support in a summative assessment in an educational setting (e.g., for an assignment or a test) this may be considered as cheating. Thus, how we view performance in an educational setting and elsewhere is based on cultural norms (Gipps, 1999). It is recognised that there will always be a tension between the sociocultural norms of a community of workplace practice and those of a community of education practice. This is particularly so, given the inherent contradictions and conflicts between the way learning, performance and evaluation (assessment) are viewed within and outside an education setting (Lave & Wenger, 1991). Despite the potential tensions

between formative and summative assessment, the introduction of the portfolio model of assessment in the business internship has gained broad support among its stakeholders. Thus, the formative aspects of the portfolio model have contributed positively to the summative outcome, without appearing to compromise the nature of either. While beyond the scope of this thesis, it is possible that this could be the catalyst for changes within the Business School. Such changes may include viewing assessment more holistically by taking a whole-of-programme approach to student development and preparation for professional practice (see also Implications below).

The nature of the portfolio assessment has shown that it can create a positive ‘backwash’ effect on learning, contributing to its consequential validity. The gathering of evidence for the portfolio is an on-going process that occurs throughout the placement. An important aspect of this is the informal learning students develop through the on-going dialogue with the ‘expert’ others. In the workplace, students engaged with their workplace host and co-workers to determine expectations of, and progress in, their work. Thus their knowledge of the important workplace competencies was heightened, including how these related to what counts as good work. Students’ informal learning was also enhanced through the ‘cues and clues’ afforded by the physical and psychological tools that are embedded in the cultural practice (Vygotsky, 1978). For students in the business internship, a noticeable aspect of this learning were the insights they gained when observing the importance of communication in the workplace, particularly its informal nature. Essentially, by recognising the distinctive nature of learning that occurs within a community of work practice the portfolio model has shown that assessment can be used as a practical tool to encourage and enable students to engage in ‘legitimate peripheral participation’ and enculturation in the workplace, thereby enhancing their ‘identity formation’ and what it means to be a professional practitioner. Importantly, this requires workplace competency performance and development to be at the heart of the summative assessment process; not something that is excluded or marginalised.

The portfolio assessment model has also contributed to students’ development as self-regulators and lifelong assessors of their own learning. The portfolio is constructed by students, who take responsibility for gathering relevant

evidence to demonstrate their achievements, both in relation to their performance and their learning. Students consider their evidence in relation to the criteria and evidential guidelines. This is an iterative process that occurs over the period of the placement, aided by on-going critical reflection and dialogue (especially in determining how they are performing). At the end of the placement, assessment of work performance occurs through students' self-assessment, followed by a collaborative process that is development-focused. Students subsequently reflect on the feedback and identify those areas of focus for their future development and growth. This closes the loop on the internship's cycle of learning, articulated by students through completion of the portfolio, and the determination of their level of overall achievement. This is subject to 'checking for accuracy', through moderation, rather than it being 'assessed' by others. The implied message to the student is that assessment is an act of the learner, not an act performed on the learner (as is the case in conventional summative assessment practices). In effect, the portfolio is a sustainable assessment model that contributes to students' metacognitive development, self-awareness, and skills in self-assessment. The self-assessment and collaborative approach to performance assessment also parallels common performance evaluation approaches that students are likely to experience in their future careers. Typically, annual performance reviews in the workplace will require employees to self-assess their own performance and development needs prior to discussing this with their manager. This thesis has therefore shown that ways can be found to empower students to take responsibility for assessment decisions, in ways that contribute to their development as lifelong assessors; an important pre-requisite for self-regulation as an employee in the workplace.

In summary, this thesis has focused on determining how a student's workplace performance and learning can be assessed appropriately within a business internship. By engaging with the literature and the contextual complexities involved in a practice setting, a portfolio assessment model was developed and implemented through intervention in a business internship. It was subsequently shown to meet the requirements and acceptance of the stakeholders involved, and has contributed in a number of ways to students' current and future learning. A number of implications arise from the findings in this study for

educational stakeholders with an interest in assessment and learning in cooperative education. These implications are now discussed.

9.1 Implications

The findings from this thesis have several implications for assessment in cooperative education that is part of a formal academic programme of study. In discussing these implications it is accepted that the contextual situations affecting individual cooperative education programmes will influence their relevance. The following implications are drawn from the experiences of assessment practices within a business internship, which is part of a business degree in the Takahe Polytechnic.

A different and more pragmatic view of validity and reliability in assessment should be taken in cooperative education, recognising that workplace learning is unique, variable and informal in nature. This contrasts with the formal, structured learning that occurs within an education community of practice where the curriculum is fixed and supported by common learner outcomes. Authentic assessment practices, such as portfolio assessment, need to pay particular attention to consequential validity, systemic validity, efficiency/economy in validity, and fairness.

Constructing the ‘truth’ of a student’s work performance should be viewed as emerging through consensus, based on the collective interpretation of those stakeholders directly involved, including the student. Such interpretation is reliant on the informed understanding of the contextual influences impacting on performance, including the prevailing workplace standards. An implication of this is the importance of involving students and employers in performance assessment, supported by on-going dialogue. Thus assessment should be viewed as a joint responsibility, for example, with the student and employer identifying performance and development outcomes, facilitated by the academic involved.

Passing more responsibility for performance assessment onto the student equally applies to other learner outcomes, such as what students have learned from their experiences and how this informs their development needs. This

challenges the conventional norms of the 'expert' academic assessor taking sole responsibility for informing the student of the outcome at the end of the placement. Creating joint responsibility for assessment can create a conflict with the norms of assessment within the wider community of education practice, potentially challenging the traditional power and control that is consciously or sub-consciously employed by academics. Thus the sustainability of authentic forms of assessment, such as portfolios, may need to find ways of creating a 'mind-shift' that will embrace different approaches to assessment and learning. In effect, the mind-shift required is to be able to extend the notion of 'student-centred learning' to 'student-centred assessment'.

Preparing students for professional practice is a common goal in cooperative education programmes. Such preparation includes the need to pay attention to those competencies deemed important in the workplace. These include a range of behavioural competencies, such as communication and interpersonal skills, critical reflection, flexibility, adaptability, self-efficacy, social skills and so on. However, where work placement periods are relatively short, which is typically the case in internships, it is likely there will be insufficient time to develop such competencies. Thus attention may need to be given to their development elsewhere in the academic programme. This can sometimes be in conflict with prevailing curriculum and pedagogical practices where the focus is predominantly on the more technical aspects of the curriculum (and related cognitive development), occurring within the isolation of each module or paper. It is suggested here that a whole-of-programme approach to both assessment and learning, based on desirable graduate outcomes, should be considered. This also has the potential to reduce the high costs often associated with modular approaches to assessment and learning.

Supervision and mentoring support for student learning in the workplace should be viewed as a specialist form of pedagogical practice. Adequate training needs be given to ensure there is a consistent approach to maximising student learning. Given the importance of developing students as lifelong assessors of their own learning, academic supervisors may need to view themselves as aspiring 'metacognitive' experts, rather than simply good teachers with discipline expertise. There is useful guidance available in the literature on effective

mentoring (e.g., see Daloz, 1986, 1999; Lick, 1999; Ricks & Van Gyn, 1997), including how to tailor support to individual students based on their current levels of intellectual development (Ignelzi, 2000). Such expertise can be used not only to support students directly, but also to help employers provide in-situ workplace mentoring of students in order to maximise their work performance. Improvement in supervision and mentoring has the potential not only to enhance students' learning and development, but also to enhance validity and reliability in assessment.

A further implication of the findings from this study is the need for assessment practices in cooperative education to take a broad view of the learning that students derive from their workplace experiences. Assessment practices need to recognise the importance of the informal, emergent and situated nature of workplace learning. Assessment also needs to recognise the sociocultural influences on learning, embedded in the physical and psychological tools of the workplace. Such influences contribute to students' enculturation in the workplace community, which is a necessary pre-requisite for *identity formation* and preparation for life after the academy. This thesis has demonstrated that assessment can be a valuable and practical mechanism for enabling such learning to occur.

Finally, while the portfolio assessment model has demonstrated its value in the context of a business internship, its structure and processes for facilitating the assessment of performance and learning may provide the basis for similar assessment methods in other cooperative education disciplines and contexts. Indeed, student exposure to the workplace over longer periods and/or through multiple placements, a common feature of many cooperative education programmes, provides the opportunity for increased participation in a community of work practice. This is likely to not only strengthen stakeholder views of students' performance achievements and areas for development, but is also likely to increase students' exposure to the important informal, emergent and sociocultural learning affordances gained through their legitimate peripheral participation.

9.2 Limitations

As with any research study, this thesis has some limitations. According to Shulman (1988) this is not something to be concerned about, rather it is about being open about potential researcher bias and identifying possible constraints that may have impacted on the study. Potential limitations in this thesis are now summarised.

- As with most interpretivist inquiries the researcher becomes immersed in the study, and inevitably becomes familiar with the participants and respondents involved. In this study, the researcher was employed in the same education institution as the academic stakeholders, from whom data was collected, and knew all the academics involved. The subjective nature of this creates the potential for researcher bias, particularly in the way the research is designed, and the way the data is collected and analysed. To address such potential bias, criteria for rigour and trustworthiness in interpretivist inquiries, outlined by Lincoln and Guba (1985), was adopted. This included addressing issues of *credibility*, *transferability*, *dependability*, and *confirmability*. How these were applied in this study was outlined in Chapter 5.
- It is acknowledged that stakeholder views obtained in this study elicited perceptions only, and can therefore be described as being inferential. To mitigate this, data were triangulated from several sources, across different stakeholder groups, including interviews, questionnaires, observations and document analysis. Thus an overall picture of stakeholder views was provided.
- The value of the portfolio model of assessment has been described through the views expressed by stakeholders involved over a two semester period. It is possible that views captured over a longer period may add to or alter the overall picture presented here. However, as in any study, changing contextual factors will always create new conditions that will impact on stakeholder views. Thus this study has described, through *thick description*, the contextual factors involved at this particular point in time.

- While consideration has been given to the impact of the assessment on learning in a business internship, the focus of the thesis is on assessment, not on the learning itself. Theories of learning have informed how assessment may be considered, and the contribution it can make to learning. While the development of the portfolio assessment model included a review of the business internships' aims and learning outcomes, it did so only with regard to ensuring they were sufficiently broad in scope to enable the assessment to cover important areas of learning. For example, this influenced the shift in attention to formative assessment and student development, which is at the heart of the portfolio model. It also influenced the evidential requirements for the portfolio. For example, students were encouraged to consider a number of questions to assist their critical reflections. Different theories of learning contributed to this, such as sociocultural theories that focused students' attention beyond things that may be immediately apparent, such as the cultural tools, artefacts and influences that were present in the workplace. While consideration has been given to student learning in the findings, this is limited to the *consequential validity* of the assessment (i.e., by considering whether the assessment had a positive 'backwash effect' on student learning).
- The nature of assessment, particularly in the context of cooperative education, means it will always be a subjective process. The portfolio model developed in this thesis is no exception. The model has embraced this by viewing assessment as a joint responsibility of the stakeholders involved, enabling the 'truth' of learning and performance to emerge through dialogue and consensus. It is recognised that there may be elements of the model developed that may change over time. Such decisions will be based on the subjective views of the academics involved at the time, based on their practice experiences, stakeholder feedback, and the views and theoretical principles expressed in the relevant literature.

9.3 Suggestions for future research

This study has contributed to understanding how student achievement in cooperative education can be summatively assessed. The following suggestions are made for future research in this field:

- Identifying the barriers to creating a more integrated approach to assessment and learning in those academic programmes that have a cooperative education component. What strategies could be employed to overcome such barriers?
- Examination of various forms of assessment and their potential impact on student learning, self-efficacy, attitudes, motivation and competency development. A particular focus could be on identifying those forms of authentic assessment practices that can be integrated with the assessment of the technical discipline requirements of the academic programme, and that contribute to graduates' preparedness for employment and professional practice.
- Where multiple work placements are a feature of the cooperative education programme, a longitudinal study could examine how assessment contributes to student learning over each of the placement periods. This may enable different elements to be incorporated into the assessment during each of the placement periods. For example, enabling greater attention to be given to certain competencies at different stages of the co-op programme.
- An in-depth study of the attributes of effective academic supervision and employer mentoring in cooperative education. Particular attention should be given to those factors that contribute to student metacognitive and competency development.
- Use of new technologies (e.g., e-portfolios, Facebook™, Twitter™, blogs, wikis). How might these be used in the assessment of student's workplace learning? Can use of such technologies for assessment purposes

contribute to student learning in ways that are valuable for their professional development?

- Undertaking a longitudinal study to see the extent to which the portfolio assessment practices experienced by students impact on their lifelong learning. For example, to what extent do they engage in reflective practice? Are they using goal setting? To what extent does this inform their professional development activities?

This thesis has shown that ways can be found to develop summative assessment practices in cooperative education that are informed by relevant theories of learning, meet reasonable levels of validity and reliability, and that are acceptable to the stakeholders involved. It has also served to confirm the importance of context, and that any assessment methods and approaches developed will always be subservient to the particular practice circumstances that affect their utility and acceptance. More research done in this field, in different contexts, can only add to our understanding of how to conduct summative assessment in cooperative education.

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Appendices

Appendix A

Business Internship: Student Evaluation Questionnaire (Semester One)

*Please tick ✓ the box beside each statement that best represents your views.
Feel free to add any comments beneath each statement if you wish.*

	Strongly Agree 5	Agree 4	Neither / Unsure 3	Disagree 2	Strongly Disagree 1
Value of Course					
The course has been demanding and stimulating <i>Comments:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The course has extended my present knowledge and skills <i>Comments:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The course has assisted my <i>professional</i> development <i>Comments:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The course has assisted my <i>personal</i> development <i>Comments:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The course has improved my knowledge of the workplace / host expectations <i>Comments:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My self confidence has improved <i>Comments:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Overall, this course has been of value to me <i>Comments:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Assessment of Course					
As a result of completing the portfolio, I feel more confident self-assessing my competencies <i>Comments:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
As a result of completing the portfolio, I feel more confident self-assessing my work performance <i>Comments:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
As a result of completing the portfolio, I am more able to understand myself and the way that I learn <i>Comments:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Assessment of Course	Strongly Agree 5	Agree 4	Neither / Unsure 3	Disagree 2	Strongly Disagree 1
I intend to use elements of the portfolio for my personal and/or professional development in the future <i>Comment:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The portfolio's self assessment process was a valuable learning experience <i>Comment:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I understood what I needed to do in order to gain a Pass Grade <i>Comment:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I understood what I needed to do in order to gain a Merit Pass Grade <i>Comment:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Using a competency-based grading system (Merit Pass, Pass etc.) is appropriate in this type of course <i>Comment:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Overall, the portfolio assessment process was appropriate and fair <i>Comment:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The Collaborative Assessment process (involving you, <u>the host sponsor and the academic supervisor</u>): The collaborative assessment guide was helpful in outlining expected workplace competencies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Prior to the three-way meeting I had collected sufficient evidence to support my self-assessment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Prior to the three-way meeting I felt confident that my self-assessment would be confirmed by the host sponsor and academic supervisor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The feedback I received at the Collaborative Assessment meeting was valuable and fair <i>Comment:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Strongly Agree 5	Agree 4	Neither / Unsure 3	Disagree 2	Strongly Disagree 1
Organisation of Course					
All necessary course information was clearly Communicated to me <i>Comment:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I was satisfied with the service provided to me by the Course Coordinator <i>Comment:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My work placement was undertaken in an appropriate organisation <i>Comment:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The following workshops/ classroom activities were helpful <u>(only complete for those sessions you attended):</u>					
Week One: Course overview; Workplace competencies; DVD-Rules of Work; Video-Getting organised;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Week Two: Personal vision; Ethics at work; Reflection; Portfolio assessment (1) - overview	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Week Three: DVD-Giving/receiving feedback; Working in teams (treasure hunt exercise)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Week Four: Personal & Professional learning goals; Setting performance measures; Portfolio assessment (2) – Requirements; Collaborative Assessment Process & Guide	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The following aspects of BlackBoard™ / On-line Support were <u>helpful (only complete for those you used/read)</u>					
S/Study unit: Portfolio 1 - An Overview	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S/Study unit: Portfolio 2 - Achievement of Work Objectives	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S/Study unit: Portfolio 3 - Workplace Learning & Future Development Plans	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S/Study unit: Portfolio 4 - Assessment Criteria and Grading	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S/Study unit: Reflection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S/Study unit: Ethics at Work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S/Study unit: Personal Vision	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S/Study unit: Personal & Professional Learning Goals	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
S/Study unit: Challenge FRAP	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Documents and materials posted on BlackBoard™	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The regular / weekly emails sent by the Course Coordinator	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OVERALL, I was satisfied with the BlackBoard™ / On-line support provided	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comment:

Please list any other workshops or on-line support you would have liked to see included:

	Strongly Agree 5	Agree 4	Neither / Unsure 3	Disagree 2	Strongly Disagree 1
Academic Supervision and Support					
I was able to meet with my academic supervisor regularly / as required	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My academic supervisor provided helpful feedback and direction for the project / work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My academic supervisor provided prompt responses to any queries/questions I had (e.g. via email)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My academic supervisor helped me reflect on my workplace learning experiences	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My academic supervisor was able to assist me with any queries I had with regard to completing and gathering evidence for my portfolio	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OVERALL - I was satisfied with the quality of supervision provided by my academic supervisor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments on academic supervision and support:

Work (Host) Supervision and Support

Most of the work I did was at an appropriate level given my prior knowledge, skills and experience	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The work/workplace provided a valuable learning experience for me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I was able to meet with my workplace host/mentor regularly / as required	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My workplace host/mentor gave helpful feedback and direction for the project/work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
During the work period I was able to gain a reasonable understanding of the host/mentor's work standards / expectations of me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My workplace host/mentor provided prompt responses to any questions I had	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OVERALL, I was satisfied with the quality of the support / help provided by the host/mentor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Comments on workplace host supervision and support:

Overall comments on Course
What did you like about this course? (continue over page if needed)
How do you think this course could be improved? (continue over page if needed)

Appendix B

Academic Supervisor Focus Group Guide (Semester One)

1. Supervision experiences:

- Do you think that the model of one-to-one supervision, which we've had in the Business Internship for some time, is valuable in helping students maximise their learning?
- What have been your experiences of supervision this semester?
- Did students provide you with regular learning journals? How did you find these?
- Are there any issues or barriers that impact on the supervision of your students?
- Are there any ways that academic supervision can be improved?

Purpose/focus

How do supervisors view their contribution to student learning? Does the introduction of the portfolio affect their relationship with the student? Is a smaller team of specialised supervisors viewed as a better supervisory model?

2. The collaborative assessment process:

- A key change in the collaborative process this semester was that marks were no longer given for workplace performance. Has this been a good thing or bad thing?
- What was your experience of how the forms were completed?
- What was your experience of how the meeting was conducted?

Purpose/focus

How do supervisors view the removal of the summative marks from the collaborative process? Has this affected the quality of the comments made on the forms and the subsequent dialogue at the meeting?

3. The portfolio:

- *What are your views on the portfolio?*
- *Is it a useful tool for student learning?*
- *What are your views on the change in grading system (11 point to a three point system)?*

Purpose/focus

Is the portfolio assessment model supported? Is the portfolio viewed as enhancing student learning? Are supervisors sufficiently aware of the portfolio requirements in order to provide valuable and consistent advice to students? Is the change in grading supported?

Appendix C

Business Internship: Workplace Host Evaluation (Semester One)

	Strongly Agree 5	Agree 4	Neither / Unsure 3	Disagree 2	Strongly Disagree 1
<hr/>					
Student's Work/Project					
The benefits of the student placement outweighed any costs incurred (e.g. actual payments, staff time spent mentoring etc, extra resources)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Comments?</i>					
We would be happy to take another student at some future date (if there is a suitable project available)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Comments?</i>					
OVERALL - I was satisfied with the work completed by the student	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Comments?</i>					
<hr/>					
Organisation, Communication and Support					
All necessary information was clearly communicated to me by Takahe	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Comments?</i>					
The support provided to the student by Takahe staff was beneficial to the project	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Comments?</i>					
OVERALL, I was satisfied with the quality of support and organisation provided by Takahe staff	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Comments?</i>					

Strongly Agree 5	Agree 4	Neither / Unsure 3	Disagree 2	Strongly Disagree 1
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Collaborative Assessment of Student Performance and Development

The requirements of the collaborative assessment of the student's performance and development were clearly communicated to me

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Comments?

Involving the three parties in face-to-face assessment of student performance and development was a valuable process

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Comments?

The Collaborative Assessment Guide was clear and helpful

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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Comments?

The performance and competency statements in the Collaborative Assessment Guide are appropriate and fair

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Comments?

OVERALL, I was satisfied with the process used to assess the student's performance and development needs

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
--------------------------	--------------------------	--------------------------	--------------------------	--------------------------

Comments?

General Comments

Comment on what you liked about the Business Internship

Comment on how the Business Internship could be improved

Appendix D

Business Internship: Student Evaluation Questionnaire (Semester Two)

*Please tick ✓ the box beside each statement that best represents your views.
Feel free to add any comments beneath each statement if you wish.*

	Strongly Agree 5	Agree 4	Neither / Unsure 3	Disagree 2	Strongly Disagree 1
Value of Course					
The course has been demanding and stimulating <i>Comments:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The course has extended my present knowledge and skills <i>Comments:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The course has assisted my <i>professional</i> development <i>Comments:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The course has assisted my <i>personal</i> development <i>Comments:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The course has improved my knowledge of the workplace / host expectations <i>Comments:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My self confidence has improved <i>Comments:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Overall, this course has been of value to me <i>Comments:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Assessment of Course					
As a result of completing the portfolio, I feel more confident self-assessing my competencies <i>Comments:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
As a result of completing the portfolio, I feel more confident self-assessing my work performance <i>Comments:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
As a result of completing the portfolio, I am more able to understand myself and the way that I learn <i>Comments:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Assessment of Course	Strongly Agree 5	Agree 4	Neither / Unsure 3	Disagree 2	Strongly Disagree 1
I intend to use elements of the portfolio for my personal and/or professional development in the future <i>Comment:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The portfolio's self assessment process was a valuable learning experience <i>Comment:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I understood what I needed to do in order to gain a Pass Grade <i>Comment:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I understood what I needed to do in order to gain a Merit Pass Grade <i>Comment:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Using a competency-based grading system (Merit Pass, Pass etc.) is appropriate in this type of course <i>Comment:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Overall, the portfolio assessment process was appropriate and fair <i>Comment:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The Collaborative Assessment process (involving you, <u>the host sponsor and the academic supervisor</u>): The collaborative assessment guide was helpful in outlining expected workplace competencies	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Prior to the three-way meeting I had collected sufficient evidence to support my self-assessment	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Prior to the three-way meeting I felt confident that my self-assessment would be confirmed by the host sponsor and academic supervisor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The feedback I received at the Collaborative Assessment meeting was valuable and fair <i>Comment:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Strongly Agree 5	Agree 4	Neither / Unsure 3	Disagree 2	Strongly Disagree 1
Organisation of Course					
All necessary course information was clearly communicated to me <i>Comment:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I was satisfied with the service provided to me by the Course Coordinator <i>Comment:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My work placement was undertaken in an appropriate organisation <i>Comment:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The four preparation workshops/classes held at the beginning of the semester were helpful (only complete if you attended) <i>Comment:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The two workshops/classes held during the semester (to share experiences) were helpful (only complete if you attended): <i>Comment:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The self study guides available on BlackBoard™ were helpful <i>Comment:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The weekly email tips sent by the Course Coordinator were helpful <i>Comment:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The documents and materials posted on BlackBoard™ were helpful <i>Comment:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OVERALL, I was satisfied with the BlackBoard™ / On-line support provided <i>Comment:</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Please list any other workshops or on-line support you would have liked to see included:

	Strongly Agree 5	Agree 4	Neither / Unsure 3	Disagree 2	Strongly Disagree 1
Academic Supervision and Support					
I was able to meet with my academic supervisor regularly / as required	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My academic supervisor provided helpful feedback and direction for the project / work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My academic supervisor provided prompt responses to any queries/questions I had (e.g. via email)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My academic supervisor helped me reflect on my workplace learning experiences	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My academic supervisor was able to assist me with any queries I had with regard to completing and gathering evidence for my portfolio	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OVERALL - I was satisfied with the quality of supervision provided by my academic supervisor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Comments on academic supervision and support:</i>					

Work (Host) Supervision and Support					
Most of the work I did was at an appropriate level given my prior knowledge, skills and experience	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The work/workplace provided a valuable learning experience for me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I was able to meet with my workplace host/mentor regularly / as required	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My workplace host/mentor gave helpful feedback and direction for the project/work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
During the work period I was able to gain a reasonable understanding of the host/mentor's work standards / expectations of me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
My workplace host/mentor provided prompt responses to any questions I had	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OVERALL, I was satisfied with the quality of the support / help provided by the host/mentor	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<i>Comments on workplace host supervision and support:</i>					

Overall comments on Course
What did you like about this course? (continue over page if needed)
How do you think this course could be improved? (continue over page if needed)

Appendix E

Student Interview Guide (Semester Two)

1. Looking back, was the Internship a valuable learning experience? Why/why not?

Purpose/focus

What learning was valued by students? What did they learn about themselves and others? What hampered their learning?

2. What did you think about the portfolio as a tool for supporting and demonstrating what you learned?

Purpose/focus

What components of the portfolio were valued and in what way (e.g., critical reflections, goal setting, evidence of work performance, CV development)?

3. Are you still using any of these tools or approaches today? Why/why not?

Purpose/focus

Has the portfolio affected students' future intentions (e.g. in using goals, reflective journals)? What are the perceived consequences of these experiences?

4. Was it clear to you what you needed to do to complete your portfolio?

Purpose/focus

Were the guidelines clear? How did students compile the evidence? Did they seek support/clarity from others? What was their understanding of the different requirements for a Pass/ Merit Pass?

5. How did you find the collaborative, three-way assessment process?

Purpose/focus

Were students prepared for / comfortable in self-assessing their own performance and discussing this with others? Did they understand what was expected of them / employer standards? Did they value the feedback; in what way?

6. Are there any other comments that you wish to make about what you liked or didn't like about the Internship?

Purpose/focus

Are there any other factors that impacted on student learning and assessment?

Appendix F

BUSINESS INTERNSHIP

LEARNING AGREEMENT

DATED

PARTIES

- (1) *Takahe Polytechnic (“Takahe”)*
- (2) *[NAME OF STUDENT] (“Student”)*
- (3) *[NAME OF SPONSORING ORGANISATION/CLIENT] (“Sponsor”)*

BACKGROUND

- A. *The Student is currently enrolled in a [name of course] programme at Takahe.*
- B. *The programme requirements for the [name of course] include a requirement that the Student complete a practice based learning component.*
- C. *The Sponsor is a [company/organisation] which operates a [describe business] business in [describe location].*
- D. *The Sponsor has agreed to provide work experience to the Student in accordance with Takahe’s practice-based learning requirements as described in the Work Specification.*

1. TERM

- 1.1 *This Agreement will begin on [insert date] [], or any other date that the parties agree in writing.*
- 1.2 *This Agreement will end on [insert date] unless it is earlier terminated in accordance with the Student Brief.*
- 1.3 *The obligation of the parties under clauses 1.3, 7 and 8 of this Agreement will survive the termination or expiry of this Agreement.*

2. WORK SPECIFICATION

- 2.1 *The Sponsor will provide learning opportunities to the Student in accordance with the Work Specification during the Term.*
- 2.2 *The Student will attend the Sponsor's premises and carry out the Work in accordance with the Work Specification and the terms of this Agreement during the Term.*
- 2.3 *Takahe [will/will not] provide supervision of the Student during the Work and will provide the Student with the services set out in this Agreement and in the Student Brief.*
- 2.4 *The Work Specification forms part of this Agreement and the Student, Takahe and the Sponsor agree to abide by its terms.*

3. RESPONSIBILITIES OF STUDENT

- 3.1 *The Student will:*
 - (a) *use [his or her] best endeavours to complete the Work within the time frame and according to the requirements of the Work Specification;*
 - (b) *during the Term, undertake the Work at the Sponsor's premises on days and times agreed between the Student and the Sponsor;*
 - (c) *abide by any policies, practices, rules and codes of conduct of the Sponsor provided to the Student in accordance with clause 4.1(d) while carrying out the Work;*
 - (d) *organise and attend any progress meetings as provided in the Work Specification;*
 - (e) *throughout the Term, make notes relating to [his or her] performance of the Work for use in [his or her] self-assessment at the end of the Work;*
 - (f) *raise any concerns about the Work with [his or her] Academic Supervisor as soon as those concerns arise;*
 - (g) *at all times during the Term abide by the policies, rules and codes of conduct set out in Takahe's Academic Statute;*
 - (h) *contribute to the assessment of the Work in accordance with the assessment procedures identified in the Work Specification; and*
 - (i) *at the end of the Term, return to the Sponsor all resources provided by the Sponsor for the conduct of the Work.*

4. RESPONSIBILITIES OF SPONSOR

- 4.1 *The Sponsor will:*
 - (a) *during the Term, provide the Student with the supervision, resources and industry experience described in the Work Specification;*
 - (b) *contact the Academic Supervisor as soon as possible in the event that it has any concerns about the Work, the Work Specification, the Student or the Student's compliance with clause 3.1(c) of this Agreement;*
 - (c) *contribute to the assessment of the Student's Work in accordance with the assessment procedures set out in the Work Specification;*
 - (d) *after this Agreement is signed, provide the Student with a copy of all of the Sponsor's policies, practices, rules and codes of conduct which may, in the Sponsor's reasonable opinion, be relevant in the carrying out of the Work;*
 - (e) *permit the Academic Supervisor to have reasonable access to the Sponsor's premises in order to supervise the Work, assist in the resolution of disputes and generally deal with Student queries;*
 - (f) *not require the Student to undertake activities as part of the Work which are beyond the Student's experience or ability or beyond the scope of the Work;*

- (g) *attend meetings as provided in the Work Specification;*
- (h) *provide the Student with resources appropriate to the nature of the Work; and*
- (i) *after this Agreement is signed, provide the Student with an induction into the Sponsor's business, including information on:*
 - *reporting procedures on the Sponsor's premises;*
 - *safety procedures;*
 - *dress code;*
 - *the Student's rights and conditions of access to the Sponsor's premises during the Work; and*
 - *business structure.*

5. RESPONSIBILITIES OF TAKAHE

5.1 Takahe will:

- (a) *provide the supervision and resources described in the Work Specification during the Term³;*
- (b) *contact the Sponsor as soon as possible at any time where it has any concerns about the Student, the Sponsor or the Work;*
- (c) *assess the Student's Work in accordance with the Student Brief;*
- (d) *ensure that the Student has a general awareness of the key requirements of and obligations imposed by statutes applicable to the Sponsor's business;*
- (e) *attend meetings as provided in the Work Specification; and*
- (f) *if, in its absolute discretion, it considers the Work is not being conducted satisfactorily or the Sponsor's premises are not a suitable environment for the Student, withdraw the Student from the Work.*

6. STATUS

- 6.1 *This Agreement does not constitute an offer of, or contract of, employment to the Student or Takahe by the Sponsor.*
- 6.2 *No remuneration or reimbursement of costs to the Student is provided for in this Agreement. Any agreement on remuneration and reimbursement of costs must be made directly between the Sponsor and the Student.*
- 6.3 *Nothing in this Agreement constitutes any party the partner or agent of any other party.*

7. CONFIDENTIALITY

- 7.1 *The Sponsor may, in its discretion, decide to release Information to the Student for the purposes of the Work.*
- 7.2 *Any and all information obtained by the Student in the course of the Work about the Sponsor and the Sponsor's business will be treated confidentially and used by the Student and Takahe only for the purposes of the assessment of the Work.*
- 7.3 *Where the non-release of Information to the Student could hinder the Work or the Student's assessment, the Sponsor will, as soon as possible, advise the Student and the Academic Supervisor accordingly.*
- 7.4 *Subject to clause 7.5, once the official result notice relating to the Student's Work has been issued, the Student will return or destroy, at the Sponsor's option, all Information provided by the Sponsor during the course of the Work.*
- 7.5 *The Student may retain any Information with the [written] consent of the Sponsor.*

³ 'Term' is defined in Section 11.1 of this Agreement

8. INTELLECTUAL PROPERTY

- 8.1 *All Intellectual Property owned by the Sponsor when this Agreement is signed will remain the property of the Sponsor and no rights to or interest in that property will accrue to the Student or Takahe by virtue of this Agreement.*
- 8.2 *The Student may use Intellectual Property owned by the Sponsor only for the purpose of completing the Work and complying with the Work Specification.*
- 8.3 *Subject to clause 8.2, all Intellectual Property created, made or discovered by the Student in the course of the Work in connection with, or in any way affecting or relating to, the business of the Sponsor, will immediately be disclosed to the Sponsor and will belong to and be the absolute property of the Sponsor and will not be disclosed or used by the Student for any purpose other than for the benefit of the Sponsor.*

9. NO LIABILITY

- 9.1 *Takahe will not be liable to the Sponsor or to the Student for or in respect of any claims, demands, actions, causes of action, suits, proceedings, loss, damage, expense or liability suffered or incurred by the Sponsor or the Student during the course of the Work.*

10. MISCELLANEOUS

- 10.1 *This Agreement may be amended by the addition, revocation or substitution of any provision, by a further agreement executed in the same manner as this Agreement.*
- 10.2 *The parties do not intend to create rights in or grant remedies to any third party as a beneficiary of this Agreement, and all the provisions of this Agreement will be for the sole and exclusive benefit of the parties.*
- 10.3 *No party may assign or transfer all or any part of its rights or obligations under this Agreement.*
- 10.4 *The parties will resolve any dispute arising in connection with the Work in accordance with the Work Specification.*

11. INTERPRETATION AND DEFINITIONS

- 11.1 *In this Agreement, unless the context otherwise requires:*
- “Academic Supervisor” means the Student’s academic supervisor during the course of the Work as identified in the Work Specification;*
- “Information” includes information held as personal knowledge, information recorded in writing or recorded or stored by means of any audio or videotape recorder, camera, computer or other electronic device and any material subsequently derived from information so recorded or stored;*
- “Intellectual Property” means any invention, improvement, design, process, system, customer lists, agency agreements, purchase agreements and other copyright, confidential or proprietary works and business information (whether capable of being patented, registered, or otherwise protected or not);*
- “Work” means the practical experience component of the Student’s [name of course] programme at Takahe, to be carried out on the terms of this Agreement at the Sponsor’s premises.*
- “Work Specification” means the terms of the Work and includes, but is not limited to:*
- (a) the hours required to be dedicated by the Student to the Work;*
 - (b) the requirements of the Work;*
 - (c) the assessment procedures of Takahe in respect of the Work;*
 - (d) the name of the Academic Supervisor; and*
 - (e) the Student Brief.*

“Student Brief” means Takahe’s requirements of the Student as part of the Work;

“Term” means the period between the date specified in clause 1.1, and either:

- (a) the date specified in clause 1.2; or*
 - (b) the date on which the Agreement is terminated;*
- whichever is the earlier.*

11.2 *In this Agreement:*

- (a) words importing one gender include other genders and the singular includes the plural and vice versa; and*
- (b) a reference to a clause or schedule is a reference to a clause or schedule of this Agreement, and the Schedules form part of this Agreement.*

SIGNED AS AN AGREEMENT

SIGNED for and on behalf of)
Takahe Polytechnic)
by its Authorised Signatory) *Signature*
)

SIGNED for and on behalf of)
[SPONSOR])
by Authorised Signatory) *Signature*
)

SIGNED by)
[STUDENT])
) *Signature*

Appendix G

Business Internship (Pre-intervention)

Learning Goals - Assessment Criteria

(This assessment is not for the host organisation –
It forms 10% of the course mark)

Family Name: _____ Preferred Name: _____

Student ID: _____ Supervisor: _____

Major: _____

Max Actual
Marks Marks

Write two personal learning goals

Your Goals

Have the following characteristics:

- ✓ Are related to your personal performance (knowledge or skills) 3
- ✓ Are SMART – specific, measurable, achievable, realistic, timely.
- ✓ Are relevant to your industry placement or professional skills programme

Reason for Selecting Your Goals

You explain why you chose your goal. 2

Your Evaluation Measures

- You identify 4 realistic and relevant criteria for evaluating each goal.
- You relate your evaluation criteria to your placement or case study. 3

Strategies/Actions

- You explain how you will achieve your goals.
- You identify changes in your own behaviour to meet your goals. 2

10 Total

Feedback:

Appendix H

Business Internship (Pre-Intervention)

COLLABORATIVE ASSESSMENT FORM

(55% of Total Coursework Mark)

This Collaborative Assessment Form is being completed by: *please tick*

Host Organisation Student Academic Supervisor Final Negotiated Grade

Student's Family Name: _____

Student's First Name: _____

Host Organisation: _____

Name of Host Mentor: _____

Takahe Academic Supervisor: _____

Please refer to the "Collaborative Assessment Guide for Hosts, Students and Academic Supervisors" before making judgements on the competencies demonstrated by the student.

Total Marks for Standard of Achievement"

0 – 39	Unsatisfactory Performance:	Failed to achieve a minimum acceptable standard
40 – 49	Variable Standard of Performance:	Some aspects of satisfactory & unsatisfactory performance
50 – 64	Satisfactory Performance:	Meets criteria to an acceptable/minimal expected level
65 – 74	Very Good Performance:	High standard achieved above the min. expected level
75 – 100	Exceptional Performance.	Very high standard achieved, well above the min. expected level.

SUMMARY OF MARKS

	MAXIMUM	ACTUAL
Professional Competencies	10	
Interpersonal Competencies	20	
Intellectual Competencies	10	
Project / Time Management Competencies	20	
Effective Placement Competencies	40	
TOTAL	100	

All three parties to sign after the Collaborative Assessment meeting on: __/__/__
(date)

Host Mentor's Name: _____ **Signature:** _____

Student's Name: _____ **Signature:** _____

Ac. Supervisor's Name: _____ **Signature:** _____

Business Internship (Pre-Intervention)
COLLABORATIVE ASSESSMENT FORM
 (55% of Total Coursework Mark)

COMPETENCY Comments: *(provide comments on the STUDENTS performance)*

Positive COMPETENCY & LEARNING Outcomes	
<i>Professional</i>	<u>Comments:</u>
Interpersonal	<u>Comments:</u>
<i>Intellectual</i>	<u>Comments:</u>
Project / Time Management	<u>Comments:</u>
Effective Placement	<u>Comments:</u>

Areas for COMPETENCY & LEARNING Improvement	
<i>Professional</i>	<u>Comments:</u>
Interpersonal	<u>Comments:</u>
<i>Intellectual</i>	<u>Comments:</u>
Project / Time Management	<u>Comments:</u>
Effective Placement	<u>Comments:</u>

Mentor's initials: _____ Student's initials: _____ Ac. Supervisor's initials: _____

Collaborative Assessment Competency Guide (Pre-Intervention)

EFFECTIVE PLACEMENT (40%)	PROJECT/TIME MGMTNT Competencies (20%)	INTELLECTUAL Competencies (10%)	INTERPERSONAL Competencies (20%)	PROFESSIONAL Competencies (10%)
<ul style="list-style-type: none"> ▪ Exceptional Work of a high standard that had an immediate use to the organisation. 	<ul style="list-style-type: none"> ▪ Always punctual ▪ Identifies key priorities ▪ Manages project/placement with professionalism ▪ Meets all deadlines ▪ Sets realistic goals ▪ Modifies plans to meet changing circumstances ▪ Keeps all team members informed well in advance. 	<ul style="list-style-type: none"> ▪ Quickly Assimilates Ideas and concepts ▪ Systematically Analyses and Interprets data ▪ Researches and Applies Appropriate Theory to business situations ▪ Integrates complex Ideas and Information ▪ Finds original Solutions to Problems 	<ul style="list-style-type: none"> ▪ Professional standards of Oral and Written communication ▪ Effective use of Clarifying Questions to gather information ▪ Empathic Listener who responds appropriately to others ▪ Outstanding ability to Solve Problems independently ▪ Always Accepts Constructive Feedback and responds positively. 	Outstanding 9 – 10
<ul style="list-style-type: none"> ▪ Demonstrates a range of Outstanding and Satisfactory Competencies. 	<ul style="list-style-type: none"> ▪ Demonstrates a range of outstanding and satisfactory competencies 	<ul style="list-style-type: none"> ▪ Demonstrates a range of Outstanding and satisfactory competencies 	<ul style="list-style-type: none"> ▪ Demonstrates a range of outstanding and satisfactory competencies. 	Very Good 7 - 8
<ul style="list-style-type: none"> ▪ Work has merit and makes a Value-added Contribution to the organisation with some further refinement. 	<ul style="list-style-type: none"> ▪ Attends majority of meetings ▪ Identifies some priorities ▪ Manages some issues within the project ▪ Meets most deadlines ▪ Sets goals ▪ Modifies goals under supervision 	<ul style="list-style-type: none"> ▪ Assimilates new Ideas and Concepts ▪ Analyses and Interprets data ▪ Applies Theory to business situations ▪ Integrates Ideas and Information ▪ Finds Solutions to Problems 	<ul style="list-style-type: none"> ▪ Oral and Written skills are clear, concise and effective ▪ Listens Effectively and responds appropriately ▪ Resolves Problems with guidance ▪ Accepts Constructive Criticism 	Satisfactory 5 - 6
<ul style="list-style-type: none"> ▪ Demonstrates a range of Satisfactory and Unsatisfactory Competencies. 	<ul style="list-style-type: none"> ▪ Demonstrates a range of satisfactory and unsatisfactory competencies. 	<ul style="list-style-type: none"> ▪ Demonstrates a range of Satisfactory and Unsatisfactory Competencies. 	<ul style="list-style-type: none"> ▪ Demonstrates a range of Satisfactory and Unsatisfactory Competencies. 	Intermittent 3 – 4
<ul style="list-style-type: none"> ▪ Work or placement was of no Value to the organisation 	<ul style="list-style-type: none"> ▪ Fails to meet regularly ▪ Cannot identify priorities ▪ Finds difficulty managing the project/placement ▪ Fails to meet deadlines ▪ Cannot set realistic goals ▪ Fails to modify goals 	<ul style="list-style-type: none"> ▪ Fails to adequately Assimilate New Information ▪ Inadequate Interpretation of data ▪ Lack of Theoretical Knowledge ▪ Unable to integrate Ideas and Information ▪ Problem Solves with 	<ul style="list-style-type: none"> ▪ Poor Oral and Written communication skills ▪ Does not seek Information by questioning ▪ Poor Listening Skills ▪ Unable to Resolve Problems independently ▪ Fails to accept Constructive Feedback 	Unsatisfactory 0 - 2

Appendix I

Business Internship (Pre-Intervention)

Reflective Essay Marking Guide (35% of Total Course Marks)

Student Name: _____ **Student**

ID: _____

<i>Suggested length - 3000 words</i>	<i>Max Marks</i>	<i>Actual Marks Comments</i>
<p>Introduction to essay, student and placement <i>Background to the organisation/case study</i></p> <ul style="list-style-type: none"> - <i>Nature and type of organisation</i> - <i>Size/complexity of organisation</i> - <i>Comments on external/internal environment</i> <p><i>Background to the student project/work experience</i></p>	20	
<p>Evaluation of Placement <i>Student to identify and explain in detail 3-4 learning experiences involving any of the following:</i></p> <ul style="list-style-type: none"> - <i>Project/work experience tasks</i> - <i>Key workplace events</i> - <i>Ethical issues</i> - <i>Connections between theory and practice</i> <p><i>Students should fully describe what happened, how they felt about it and how it impacted on their performance, and what they learnt from it or how they would approach the same situation now.</i></p>	55	
<p>Evaluation of Personal Learning Goals</p> <ul style="list-style-type: none"> - <i>Explain their goals and why they chose them</i> - <i>Evaluate their performance based on the measures they prepared for themselves</i> - <i>Provide evidence of their achievements</i> 	10	
<p>Presentation and Readability</p> <ul style="list-style-type: none"> - <i>The essay should reach the structure for a basic essay explained in Emerson, L (2002) Writing Guideline for Business Students. Palmerston North: Dunmore Press</i> 	10	
<p>Learning Journal</p> <ul style="list-style-type: none"> - <i>Evidence of maintenance of a weekly learning journal</i> - <i>Demonstration of reflection</i> 	5	
TOTAL	100	

Allocating marks to each section:

The marks shown above for the elements within each section are a guide only. When allocating marks for the section, try to take a 'holistic' view utilising the following criteria:

<i>0 - 25%</i>	<i>Unsatisfactory – failed to address all or most of the criteria</i>
<i>30 - 45%</i>	<i>Variable standard – with some criteria covered satisfactorily, with other criteria covered unsatisfactorily</i>
<i>50 - 60%</i>	<i>Satisfactory – covers most criteria to a reasonable standard, but lacking some depth/clarity in places</i>
<i>65 - 80%</i>	<i>Very good – achieved a high standard in most of the criteria, with some criteria met to a satisfactory standard</i>
<i>85 - 100%</i>	<i>Exceptional – achieved a very high standard throughout, well above a level you may have expected</i>

Appendix J

Business Internship

COLLABORATIVE ASSESSMENT FORM

Please read the guidelines below before completing this form.

Guide to completing this form

The purpose of the collaborative assessment process is to ensure the student's performance achievements and professional development needs are identified. To ensure this process is as valuable as possible to the student, please note the following:

Prior to the meeting:

- When completing the form please refer to the 'Collaborative Assessment Guide' attached
- Each party should complete and sign a separate copy of this form *before* the Collaborative Assessment meeting
- Please set aside sufficient time to complete this form in order to provide as much information as possible on the student's performance and development
- Be specific with your comments – feedback is more valuable if it includes reference to actual events and situations or particular tasks and responsibilities undertaken. Use evidence (e.g. from work produced or staff comments) to support your comments.
- Complete the form honestly and constructively, remembering that a key purpose of this process is to provide direction for *future* development needs
- The completed forms should be used as the basis for discussion at the meeting

During the meeting:

- Try and encourage the student to lead the discussion as far as possible
- Successful meetings are usually conducted in a constructive and collegial manner
- Focus your comments on actions, tasks and behaviour, rather than personality issues
- Allow sufficient time for the meeting to ensure all 'voices' are able to be heard
- The academic supervisor will take notes of the discussion using a *summary* form.

At the end of the meeting:

- The three *individually* completed forms should be given to the student
- The *summary* form should be copied, with the original sent to the Course Coordinator and the copy given to the student

This Collaborative Assessment Form is being completed by: please tick

Host Organisation Student Academic Supervisor Summary Form

Name of Student: _____

Name of Academic Supervisor: _____

Host Organisation: _____

Name of Host Mentor: _____

PERFORMANCE Outcomes

<p>Professional</p>	<p><i>Comment on PROFESSIONAL competencies demonstrated such as: personal presentation, 'can-do' attitude, reliability, resourcefulness, client focus, ethical values, and ability/willingness to learn.</i></p> <p><u>Comments (achievements):</u></p> <p><u>Comments (focus for future development):</u></p>
<p>Interpersonal</p>	<p><i>Comment on INTERPERSONAL competencies such as: written and oral communication, information gathering, listening, problem solving confidence, relationship building, and giving and receiving feedback.</i></p> <p><u>Comments (achievements)</u></p> <p><u>Comments (focus for future development):</u></p>

PERFORMANCE Outcomes			
Intellectual	<p><i>Comment on INTELLECTUAL competencies such as: taking on new ideas, analysis and interpretation of data, application of theory to real business, management of complex ideas and information, and viability of solutions.</i></p> <table border="1" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p><u>Comments (achievements):</u></p> </td> <td style="width: 50%; vertical-align: top;"> <p><u>Comments (focus for future development):</u></p> </td> </tr> </table>	<p><u>Comments (achievements):</u></p>	<p><u>Comments (focus for future development):</u></p>
<p><u>Comments (achievements):</u></p>	<p><u>Comments (focus for future development):</u></p>		
Project/Time Management	<p><i>Comment on PROJECT / TIME MANAGEMENT competencies such as: punctuality, self management, prioritising tasks/time, meeting deadlines, managing pressure & conflict, ability to modify plans and keep key stakeholders informed.</i></p> <table border="1" style="width: 100%;"> <tr> <td style="width: 50%; vertical-align: top;"> <p><u>Comments (achievements):</u></p> </td> <td style="width: 50%; vertical-align: top;"> <p><u>Comments (focus for future development):</u></p> </td> </tr> </table>	<p><u>Comments (achievements):</u></p>	<p><u>Comments (focus for future development):</u></p>
<p><u>Comments (achievements):</u></p>	<p><u>Comments (focus for future development):</u></p>		

Collaborative Assessment Guide

<i>VALUE OF WORK COMPLETED</i>	PROJECT/TIME MNGMNT Competencies	INTELLECTUAL Competencies	INTERPERSONAL Competencies	PROFESSIONAL Competencies	
<ul style="list-style-type: none"> ○ Exceptional work of a high standard that has an immediate use to the organisation. Typically, the work shows most of the following attributes: <ul style="list-style-type: none"> ○ Elements of creativity, uniqueness and innovation ○ Effective solutions/outcomes ideally suited to organisation ○ Detail immaculate ○ Fully integrated and professional level documentation ○ The work exceeds expectations 	<ul style="list-style-type: none"> ▪ Always punctual ▪ Identifies key priorities ▪ Manages project/placement with professionalism ▪ Meets all deadlines ▪ Sets realistic goals ▪ Focuses on quality & accuracy ▪ Modifies plans to meet changing circumstances ▪ Keeps all team members informed well in advance ▪ Stays calm and resistant to stress ▪ Motivates and calms others / resolves any conflicts 	<ul style="list-style-type: none"> ▪ Quickly assimilates ideas and concepts ▪ Systematically analyses and interprets data ▪ Researches and applies appropriate theory to business situations ▪ Integrates complex ideas and information ▪ Finds original solutions to problems 	<ul style="list-style-type: none"> ▪ Always employs professional standards of oral and written communication ▪ Effective use of clarifying questions to gather information ▪ Empathetic listener who responds appropriately to others ▪ Outstanding ability and confidence to resolve problems independently ▪ Embraces diversity in the workforce to build effective relationships and teamwork ▪ Always accepts constructive feedback/responds positively ▪ Is able to give effective, critical feedback 	<ul style="list-style-type: none"> ▪ Always demonstrates initiative and Resourcefulness ▪ Always reliable ▪ Very high standard of personal presentation ▪ Displays passion & a 'can do' attitude for their project / work. ▪ Displays commercial sensitivity / always has a client service focus ▪ Demonstrates a willingness and ability to learn and grow ▪ Uses ethical values when making or responding to decisions 	Outstanding
<ul style="list-style-type: none"> ▪ Elements of Outstanding and Satisfactory features. 	<ul style="list-style-type: none"> ▪ Demonstrates a range of outstanding and satisfactory competencies 	<ul style="list-style-type: none"> ▪ Demonstrates a range of outstanding and satisfactory competencies 	<ul style="list-style-type: none"> ▪ Demonstrates a range of outstanding and satisfactory competencies 	<ul style="list-style-type: none"> ▪ Demonstrates a range of outstanding & satisfactory competencies 	Very Good
<ul style="list-style-type: none"> ○ Work has value and makes a contribution to the organisation. Typically, the work shows the following attributes: <ul style="list-style-type: none"> ○ Effective outcomes, but may need some further refinement to meet organisation needs ○ Detail generally correct and sufficient ○ The work meets expectations 	<ul style="list-style-type: none"> ▪ Attends majority of meetings ▪ Identifies some priorities ▪ Manages most issues within the project ▪ Meets most deadlines ▪ Sets goals ▪ Modifies goals under supervision ▪ Appears calm and shows some conflict resolution skills 	<ul style="list-style-type: none"> ▪ Assimilates new ideas and concepts ▪ Analyses and interprets data ▪ Applies theory to business situations ▪ Integrates ideas and information ▪ Finds solutions to problems 	<ul style="list-style-type: none"> ▪ Most oral and written communication is clear and effective ▪ Listens effectively and responds appropriately ▪ Resolves problems with some guidance / developing confidence ▪ Is able to work effectively in a diverse workforce ▪ Accepts constructive feedback ▪ Raises concerns with others, but sometimes lacks confidence in knowing how to do this effectively 	<ul style="list-style-type: none"> ▪ Demonstrates initiative ▪ Usually reliable ▪ Appropriate standard of personal presentation ▪ Shows enthusiasm for their project / work ▪ Shows awareness of the importance of being client focused ▪ Keen to learn and grow, but not always aware of how to go about it 	Satisfactory
<ul style="list-style-type: none"> ▪ Elements of Satisfactory & Unsatisfactory performance 	<ul style="list-style-type: none"> ▪ Demonstrates a range of satisfactory and unsatisfactory competencies. 	<ul style="list-style-type: none"> ▪ Demonstrates a range of Satisfactory and Unsatisfactory Competencies. 	<ul style="list-style-type: none"> ▪ Demonstrates a range of Satisfactory and Unsatisfactory Competencies 	<ul style="list-style-type: none"> ▪ Demonstrates a range of Satisfactory and Unsatisfactory Competencies. 	Intermittent
<ul style="list-style-type: none"> ○ Work or placement was of no value to the organisation. Typically, the work shows the following attributes: <ul style="list-style-type: none"> ● Ineffective outcomes, which require significant rework ● Detail incorrect and insufficient ● The work does not meet expectations 	<ul style="list-style-type: none"> ▪ Fails to meet regularly ▪ Cannot identify priorities ▪ Finds difficulty managing the project/placement ▪ Fails to meet deadlines ▪ Cannot set realistic goals ▪ Fails to modify goals ▪ Cannot handle pressure or conflict 	<ul style="list-style-type: none"> ▪ Fails to adequately assimilate new information ▪ Inadequate interpretation of data ▪ Lack of theoretical knowledge ▪ Unable to integrate ideas and information ▪ Problem solves with guidance 	<ul style="list-style-type: none"> ▪ Oral and written communication is ineffective and/or inappropriate ▪ Does not seek Information by questioning ▪ Poor listening skills ▪ Unable to resolve problems independently / lacks confidence ▪ Unable to accept constructive feedback ▪ Struggles to accept /work with diversity in the workplace ▪ Raises concerns with or about others inappropriately 	<ul style="list-style-type: none"> ▪ Fails to demonstrate initiative ▪ Unreliable ▪ Inappropriate standard of personal presentation ▪ Lacks enthusiasm for their project / work ▪ Lacks empathy with the client and shows no commercial sensitivity ▪ Has no interest and/or ability in learning from what s/he is doing ▪ Lacks an understanding of ethical values and behaviour 	Unsatisfactory

Appendix K

Business Internship: Portfolio Guidelines (Semester One)

Demonstrating a ‘Pass’ grade

To Pass this course students must complete a portfolio that:

- demonstrates, through self assessment, that they have met all four learning outcomes. Specific criteria and guidelines relating to each learning outcome are given below⁴,
- provides evidence that:
 - is sufficient (a wide range of evidence from multiple sources should be provided);
 - is authentic (needs to be original and verifiable); and
 - is valid (supports and relates to the learning outcomes)
- includes a ‘road map’ or ‘signposting’ of their achievements and learning that guides the reader through the evidence provided,
- has an integrity / consistency between each component of the portfolio, i.e. between: Statements made in the learning journal; the critical reflections on workplace experiences; comments made at the collaborative assessment meeting; the PPLG’s identified for development; and the summary form of achievements and competencies, and
- has a structure and format that is:
 - accessible - all aspects of the portfolio can be retrieved and read in the format intended.
 - easy to follow - the portfolio is logically organized and structured, supported by a relevant ‘road map’ to guide the reader through the evidence to demonstrate achievement of the learning outcomes. Essentially, the structure and lay out of the portfolio should help rather than hinder understanding of the student’s learning and achievements.
 - succinct - the information is carefully selected; only relevant material that supports achievement of the learning outcomes is included.

Learning Outcome One (LO1)

Complete successfully an approved project or placement in the workplace

Criteria:

The agreed work objectives have been met to a minimum satisfactory level

Evidential Guidelines:

To meet the work objectives students must ensure that the overall ‘value of the work’, as discussed at the collaborative assessment meeting, achieves a minimum ‘satisfactory’ level, i.e. ‘the work has merit and will make a value-added contribution to the organisation with some further refinement’. If the self assessment indicates that the student believes they have met at least a minimum satisfactory level, but the summary form indicates a lower level of achievement, then the student must either:

- provide compelling evidence in their portfolio to demonstrate that there is ‘reasonable doubt’ with regard to the validity of the employer’s views⁵, and/or
- demonstrate that the student has critically reflected upon the workplace sponsor’s comments and identified how they can ensure a more successful outcome in the future⁶

⁴ It is recognised that there will be connections and overlaps between the evidence you produce to demonstrate that you have met each of the four learning outcomes. You should take this into consideration when structuring your portfolio in order to avoid unnecessary duplication.

⁵ Evidence will also need to relate to the strategies employed to understand the performance standards expected

Learning Outcome Two (LO2)

Participate effectively in the workplace

Criteria:

During the period of the work / placement, the student has actively and effectively engaged in the regular, daily work life of the organisation.

Evidential Guidelines:

Successfully achieving the work objectives (LO1) is not sufficient to demonstrate that students participated effectively in the workplace, although it is recognised that some of the evidence used to demonstrate achievement of LO1 may be used as one source of evidence for LO2. The portfolio must identify specific competencies that student's believe have been important in achieving LO2. These may include a number of elements found in each of the four competency categories in the Collaborative Assessment Guide, as well as possibly others outside this Guide. The evidence provided must relate to the use of these competencies in relation to specific work occurrences, incidents or events (and, where appropriate, confirmed by others). Evidence must also be produced to demonstrate active and effective engagement at work. Examples of active involvement may include those situations in which students initiated interactions, meetings, ideas etc., or where they participated in and made a specific contribution to a particular work / social activity. An example of effective engagement could be that their active involvement was valued and appreciated by others in the workplace / team.

Learning Outcome Three (LO3)

Evaluate and critically reflect upon the project / work processes and outcomes within the context of the workplace environment

Criteria:

The student has demonstrated an ability to 'stand-back' and review critically their work placement experiences in a way that informs their future personal and professional development.

Evidential Guidelines:

The student has considered and 'muller over' their experiences (see 'Tips on critical reflections on work experiences' over page). There is evidence of students exploring / analysing their own and/or others' actions, emotions, and behaviour. They have tended to question/interrogate their experiences, where appropriate, rather than accepting them uncritically. They have reviewed and reflected upon comments, observations and initial reflections made in their learning journal, to show evidence of 'standing back' to make further sense of their experiences. There is evidence that their reflections have been used to help inform their future personal and professional development needs and, where relevant, their future career preferences/direction. A reflective writing style is apparent in their portfolio, with narrative description generally supported by comment and analysis, for example using a 'what', so what, now what' approach.

⁶ This is only available with prior approval of the Course Coordinator. If approved, you will need to include a critique of your own actions or inactions with respect to the identification of required performance standards.

Tips on critical reflections on work experiences

The following list provides a variety of questions that students might consider when critically reflecting upon their work experiences. Please note that responses to these questions should prompt reflective thought and writing, not simple 'yes', 'no' or descriptive answers.

- What did you learn from the discussions with, and feedback provided by, your Workplace Sponsor and Academic Supervisor at the three party performance review
- In reviewing achievement of your work objectives, what did you do to meet them?; how did you determine what the work standards and expectations of the employer were?; what did you discover about your own and others' standards?; are there any insights and reflections you can make with regard to your achievement or otherwise of these objectives?
- In relation to competencies: were the competency statements in the collaborative guide helpful and accurate? If not, why not?; were there competencies that proved to be important that were not part of your goals, and why?
- What did you learn about yourself and the way that you learn?
- Looking back on your work, what might you have done differently?
- In considering your overall work experiences, what observations and insights can you make about the work / workplace itself and what it is like working in this particular 'community of practice'? Answering the following questions will help you with this:
 - what were your prior expectations and how did this differ from your actual experiences?
 - what was new to you, surprised you, pleased you, or annoyed you—why?
 - how did you feel before and then during your work placement? And, having completed this experience, how do you feel now? What does this tell you about yourself and your future work relationships?
 - what is important to the organisation and individual staff members - what is the workplace culture? How did you 'tune in' to what was happening?
 - who were the 'gatekeepers of knowledge'?; what/who was helpful (and maybe not-so-helpful) when you needed assistance?; who were the star performers?; what did you learn from this?
 - how do work colleagues interact / communicate with each other? Is there a culture of giving and receiving constructive feedback? What would you change?
 - what differences did you notice between experienced staff & new staff?
 - what observations did you make about the organisation's performance (e.g. financial, use of technology, people management)
 - what did you notice about ethical values operating in the organisation (e.g. are key values upheld or compromised; are there heroes or villains)?
 - when did you feel comfortable in your role?
 - when did you feel competent (e.g. can do the job without asking)
 - what jargon/processes/practices were new to you?
 - how did work/project practices compare/connect with theory learned through your studies?
 - how does your experience in this organisation help you with future career choices and the type of organisation you may wish to work for?
 - what achievements were you most proud of and why? What were you least proud of and why?

Learning Outcome Four (LO4)

Identify, implement, and evaluate a personal and professional development plan

Criteria:

Upon completion of their work placement, the student has self assessed their personal and professional learning goals, and competency strengths and weaknesses. This has informed and resulted in relevant changes to their CV, and the development of new goals and related strategies and performance measures.

Evidential Guidelines:

A set of personal and professional learning goals (PPLGs) have been developed for the work / placement period. Upon completion of the work / placement students have self assessed these goals. They have provided an updated CV that incorporates the work placement undertaken, including key strengths. The CV is supported by a summary worksheet that identifies the specific tasks and responsibilities they completed in which they have developed and demonstrated these key strengths. Finally, the portfolio includes a new set of PPLGs for the next 6 – 12 months that flow from their workplace reflections (see LO3) and self assessment of their original PPLGs. These are supported by the identification of relevant strategies to achieve them, as well as the identification of relevant performance measures to assist in determining whether the goals have been achieved.

Demonstrating a ‘Merit Pass’ grade

The criteria for a Merit Pass, together with evidential guidelines, are given below. If students believe they meet the criteria for a Merit Pass, they should indicate this in their portfolio. In addition, their portfolio ‘road map’ must point to the relevant evidence in their portfolio to demonstrate this.

Criteria:

The student has met all the criteria for a Pass Grade and has also demonstrated excellence in each of the following:

- work performance, and
- critical reflections on experiences

Details of how excellence can be demonstrated / evidenced for each of these are given below.

a) Work performance

Work excellence must be demonstrated in relation to both their individual competencies and to the value of work completed.

Excellence in competencies means that performance was at an ‘outstanding’ level in at least two of the four competency categories⁷. Excellence in the value of work completed means that their work is considered to have made an ‘outstanding’ contribution, i.e., ‘exceptional work of a high standard that has an immediate use to the organisation’.

Evidence to support excellence will include relevant comments / feedback from those who can attest to students’ competency and work performance, together with any relevant, supporting documents. Please note that the feedback / commentary provided should be specific. With regard to competencies, this means that relevant documents and/or comments provided should relate to actual incidents/situations in which the particular competency was demonstrated. With regard to the value of the work

⁷ In accordance with the competency standards outlined in the *Collaborative Assessment Guide*

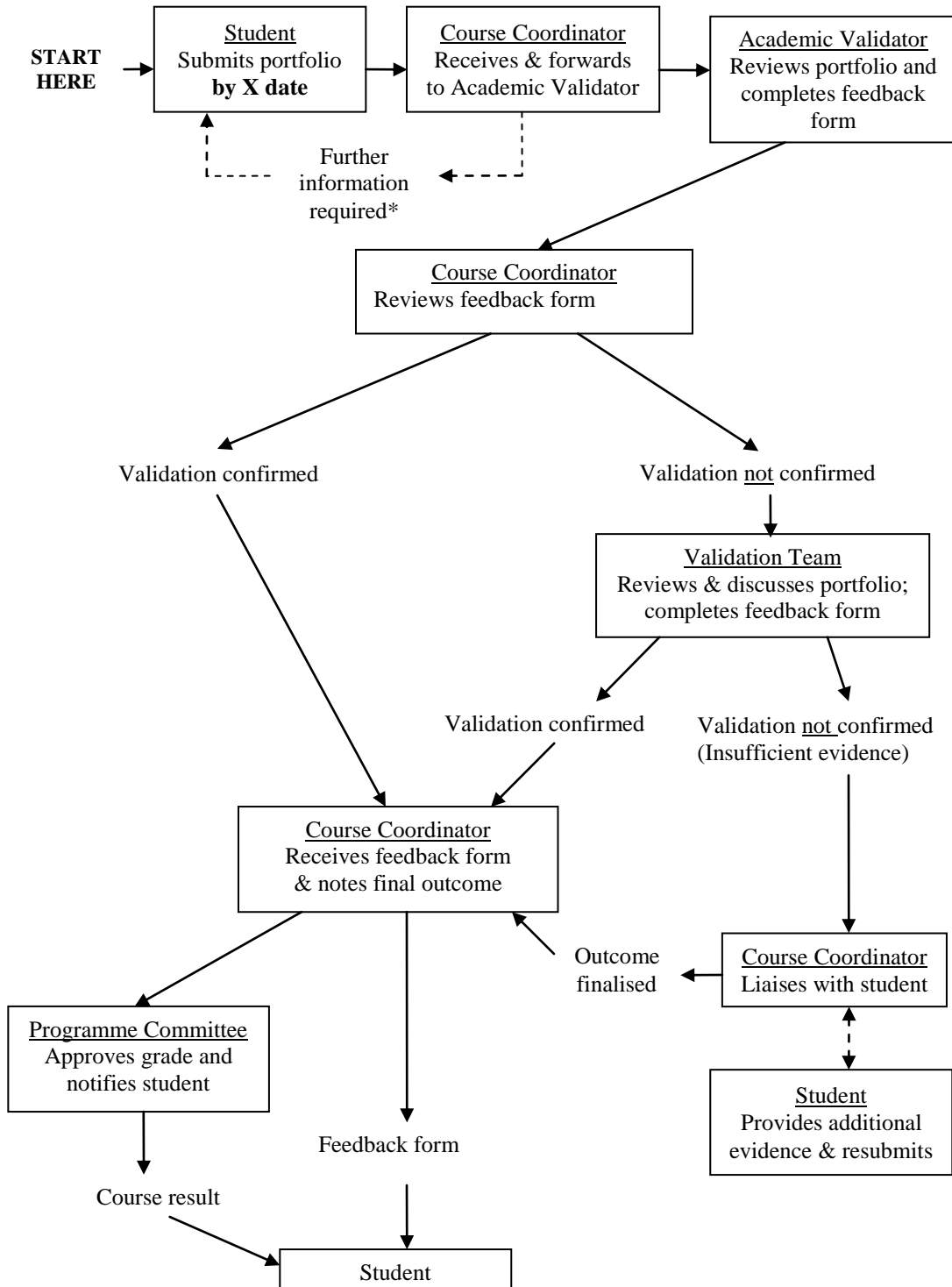
completed, comments need to indicate how the work has contributed to the organization and why it is considered to be outstanding.⁸

b) Critical reflections on experiences

The reflective component of their portfolio provides a compelling, honest and critical account of their learning journey. Their reflections provide a strong and seamless link between their original personal and professional learning goals (PPLGs), their work experiences, and the PPLGs they have set their selves for the next 6 – 12 month period. Their reflections also demonstrate a thoughtful, ‘self-critical’ perspective that is well considered and balanced. This is evidenced by the use of an ‘internal dialogue’ (self questioning) to explore possible underlying motives, beliefs and/or values for their own and others’ views, behaviours and/or actions. The dialogue makes reference to the context / situation in which the behaviour, actions etc. arose. Their reflections indicate that some ‘internal change’ has occurred – for example in having a greater awareness of: their thinking processes; their strengths and weaknesses; their own and others’ beliefs and values; and/or the way that they learn.

⁸ If you believe you have achieved an outstanding level, but your host doesn’t, you need to provide supporting evidence from other relevant sources (if such a situation arises you should firstly seek advice from your Academic Supervisor).

Flowchart of the Assessment Validation & Grading Process



** An initial check will be made by the course coordinator to ensure all required information is included in the portfolio. Students are required to provide any missing information before the portfolio is submitted to the academic validator.*

Appendix L

Business Internship

PORTFOLIO VALIDATION AND FEEDBACK FORM

Student Name:	<i>Semester & Year:</i>
ID Number:	<i>Submission No.:</i>
Degree Major:	

<u>Student Self-Assessed Grade</u> [✓]	<u>Academic Validated Grade</u> [✓]
Merit Pass []	Merit Pass []
Pass* []	Pass []
	Insufficient Evidence (see Validator feedback) []
	Not Yet Competent** []

* Unless indicated otherwise by the student, submission of the portfolio is taken as a self-assessed 'Pass' Grade

** Student is required to re-enrol

Pass Grade

(All General & LOs must be met)

	<input checked="" type="checkbox"/>
<p>General</p> <p>Effective 'road map' to guide reader</p> <p>Portfolio has integrity / consistency / authenticity</p> <p>Structure & format is accessible, easy to follow, & succinct</p>	<input type="checkbox"/> <input type="checkbox"/> <input checked="" type="checkbox"/>
<p>Learning Outcome 1</p> <p><u>Criteria:</u> The agreed work objectives required of the student have been met to A minimum <i>satisfactory</i> level</p> <p><u>Type of evidence to consider:</u> Collaborative Assessment Outcome showing the value of work is at a minimum <i>satisfactory</i> level</p>	<p>Learning Outcome 2</p> <p><u>Criteria:</u> During the work period the student has <i>actively & effectively</i> engaged in the daily work life of the organisation.</p> <p><u>Type of evidence to consider:</u> Identifies relevant competencies utilised; identifies relevant incidents/situations in which the competencies were used; shows <i>active & effective</i> engagement with organisation; Collaborative Assessment outcome provides relevant confirmation.</p>
<p>Learning Outcome 3</p> <p><u>Criteria:</u> The student has demonstrated an ability to 'stand-back' and review critically their work placement experiences in a way that informs their future personal and professional development.</p> <p><u>Type of evidence to consider:</u> Student has considered and 'mulled over' their experiences (see 'Tips on critical reflections of work experiences'); there is some exploration and analysis of their own and/or others' actions, emotions and behaviour; experiences have tended to be questioned, where appropriate, rather than accepted uncritically; they have been able to 'stand-back' to make further sense of their experiences; a link is made between their experiences and their future personal & professional development needs / intentions; a reflective writing style is apparent (e.g., takes a '<i>what</i>', '<i>so what</i>', '<i>now what</i>' approach) - is not simply descriptive.</p>	<p>Learning Outcome 4</p> <p><u>Criteria:</u> The student has self assessed their competency strengths & weaknesses as a result of their internship experiences, and has developed relevant goals, strategies and performance measures in order to drive future learning.</p> <p><u>Type of evidence to consider:</u> PPLGs used during work have been self-assessed. An updated C.V. is provided that includes key strengths and competencies developed during the placement; these strengths are linked with specific work tasks and responsibilities; a new set of PPLGs for the next 6 – 12 months provided; these connect with their critical reflections; relevant strategies to achieve new PPLGs, along with performance measures, are provided.</p>

Merit Pass Grade

<p>Excellence in Work Performance</p> <p><u>Criteria:</u> The student has met all the criteria for a Pass Grade and has also demonstrated <i>excellence</i> in work performance</p> <p><u>Type of evidence to consider:</u> Collaborative Assessment Outcome - 'value of the work' is <i>outstanding</i>; explains how the work has contributed to the organisation; host comments on <i>why</i> the work is deemed to be outstanding; two of the four competencies are <i>outstanding</i> – relevant documents and/or comments provided (e.g., on the collaborative assessment form) should support this and be related to actual incidents / situations.</p>	<p>Excellence in Critical Reflection</p> <p><u>Criteria:</u> The student has met all the criteria for a Pass Grade and also demonstrated <i>excellence</i> in critically reflecting on experiences</p> <p><u>Type of evidence to consider:</u> A strong and seamless link made between the original PPLGs, the work experiences, and the new PPLGs; an 'internal dialogue' is evident with exploration of own and/or others' motives, beliefs, and/or values; some 'internal change' is evident, (e.g., a greater awareness of their thinking processes & how they learn, and of their strengths & weaknesses).</p>
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Validator Feedback

<i>Comment on areas of strength evident in the portfolio</i>	<i>Comment on areas for future personal & professional development</i>
<i>Comment on those LO's / criteria where insufficient evidence is provided for a Pass / Merit Pass (where applicable)</i>	

Appendix M

Guidelines for the Business Internship Portfolio Assessment

(Semester Two)

These guidelines provide an overview of the assessment requirements for your portfolio. Further information about the portfolio requirements is provided on BlackBoard™ (see the four Self Study Units: Portfolios 1 – 4). The guidelines below are taken from the last Self Study Unit – Portfolio 4. It is strongly recommended that you read and complete all the ‘Self Study Units’ posted on BlackBoard™ so that you are clear on the evidence you need to be collecting for your portfolio from DAY ONE of your work / placement.

There are three possible grades that you can achieve in this course: ‘Merit Pass’; ‘Pass’, and

‘Not Yet Competent’. This guide is organised into three sections:

- Section 1.0 outlines the ‘General requirements for completing your portfolio’;
- Section 2.0 outlines the ‘Specific requirements for a Pass grade’; and
- Section 3.0 outlines the ‘Specific requirements for a Merit Pass grade’.

Achieving a ‘Not Yet Competent’ grade means you have failed to meet the ‘general requirements’ and/or the ‘specific requirements’ for a Pass or Merit Pass grade. If you initially fail to meet the General Requirements and/or Specific Requirements, you will be given the opportunity to resubmit your work within a specified time period in order to gain a passing grade (details are contained in ‘Self Study Unit: Portfolio 4’).

Section 1.0 General Requirements for completing your portfolio

1.1 Due date

Your portfolio must be handed in to the Course Coordinator, in hard copy or electronically, **no later than 5 November 2007** – NB Time and venue will be communicated to you nearer the time.

1.2 What to include in your portfolio

Your portfolio is a collection of work that captures important aspects of your work placement experiences. Broadly, it is intended to show your performance achievements and the learning you have gained from your experiences. For assessment purposes, you are required to include all relevant documents, materials and information that provide sufficient evidence to demonstrate you have met the course’s four learning outcomes (LO1 – LO4). The following table provides a checklist of the *minimum* documentation requirements for your portfolio. You are encouraged to supplement this (e.g., you may also wish to include documents, pictures or even video footage to show and highlight elements of your work experience that may help the reader to better understand the context or situation in which you completed your work).

Table: Portfolio Checklist - Minimum Documentation Requirements

What?	✓	What?	✓
Road Map (comprehensive indexing system)		Original CV (see LO4)	
Four collaborative assessment forms - completed and signed (see LO1 and LO2)		Original PPLGs - inc self-assessment at placement end (see LO4)	
Additional evidence to support achievement of work objectives (see LO1)		New CV - updated to include placement experiences (see LO4 attached)	
Additional evidence to support achievement of effective participation at work (see LO2)		Summary worksheet – supports new CV - how/where/when strengths developed (LO4)	
Weekly learning journals – minimum ten journals; plus End of placement critical reflections (see LO3)		New PPLGs – includes relevant strategies and measures to be used (see LO4)	

Ensuring consistency in your portfolio

The documents you include in your portfolio are expected to be consistent with each other. This means that clear connections are able to be made between each of your portfolio documents, in a way that convinces somebody who reads your portfolio that your experiences have been documented honestly - with integrity. The following lists a few examples:

- Your development, and later self-assessment, of your original PPLGs should link with statements made in your weekly learning journals and with feedback provided at the *collaborative assessment* meeting;
- Connections are evident between your original CV; your *summary worksheet*, your end of placement critical reflections, and your new CV;
- Relevant end of placement critical reflections can be linked to prior statements in your weekly learning journals and feedback provided at the *collaborative assessment* meeting;
- Your new PPLGs connect with statements made in your end of placement critical reflections.

1.4 Evidence required for your portfolio

As indicated in 1.2 above, your portfolio must include sufficient evidence to demonstrate you have met the course's four learning outcomes (LO1 – LO4). The type of evidence you provide will depend on whether you are seeking a Pass grade or a Merit Pass grade. These details are provided in Sections 2.0 and 3.0 below. Regardless of the passing grade you are seeking, you must ensure that the evidence you provide is:

- *valid* (supports and relates to the learning outcomes);
- *authentic* (is your own work that can be verified by others); and
- *sufficient* (a wide range of evidence is provided from multiple sources)

1.5 How to structure and format your portfolio

There is no single way to structure your portfolio. How best to organise a portfolio is an individual decision and is generally considered to be a creative process. However, as your internship portfolio will be read by somebody else then it does need to be presented in a way that makes it easy for the reader to follow. Therefore, the structure and format of your portfolio must be:

- *Easy to follow* - your portfolio is logically organized and structured, and includes a relevant 'road map' (comprehensive indexing system) that points the reader to the evidence that demonstrates your achievement of each of the learning outcomes (as outlined in section 2.0 below).
- *Concise* - the information you choose to include in your portfolio is carefully selected; it includes all *minimum documentation* required (see 1.2 above). Any additional material included has a purpose, e.g. is there to help the reader understand your work experiences and the context in which they occurred; avoid the temptation to include too much information, thereby making it difficult to read (if in doubt, include the material in an appendix, that can be referred to if needed)
- *Accessible* – we can find and read each document in the format intended. This is particularly important if you are creating an electronic version and you use other software (e.g., for creating and storing photographs or videos). If in doubt, check with the course coordinator.

Section 2.0 Specific Requirements for a Pass grade

To Pass this course you must meet the 'General Requirements' given in section 1.0 above, as well as demonstrating that you have also achieved the four learning outcomes of the Business Internship. Each of these learning outcomes is outlined below, together with the criteria (performance measures). In order to demonstrate you have met the criteria, you must provide the required evidence in your portfolio.

2.1 Learning Outcome One (LO1)

Complete successfully an approved project or placement in the workplace

Criteria:

The agreed work objectives have been met to a minimum satisfactory level

Evidence:

- At the *collaborative assessment meeting* you are expected to present relevant evidence to demonstrate you have met the work objectives set. The evidence may include a variety of information such as: work documents, emails, examples of work produced, and comments provided by work staff.
- Include this evidence in your portfolio.
- The overall 'value of the work', as discussed at the *collaborative assessment meeting*, is expected *to* be demonstrated at a minimum 'satisfactory' level, i.e., 'the work has value and will make a contribution to the organization, with some further refinement'.
- If you believe you have met at least a minimum satisfactory level but the workplace host believes you have not met this standard, you must either:
 - provide compelling evidence to demonstrate that there is 'reasonable doubt' with regard to the employer's views, including the strategies you employed to understand the performance standards expected, and/or
 - show that you have critically reflected upon the workplace sponsor's comments and identified how you can ensure a more successful outcome in the future (this option is only available with prior approval from the Course Coordinator)

2.2 Learning Outcome Two (LO2)

Participate effectively in the workplace

Criteria:

During the period of the work / placement, you have effectively engaged in the regular, daily work life of the organisation.

Evidence:

- Evidence used to demonstrate achievement of LO1 may be used as *one* source of evidence for LO2. However, successfully achieving the work objectives (LO1) is not sufficient to demonstrate that you participated effectively in the workplace.
- You must identify specific actions/behaviours that you believe have been important in achieving LO2. These may include a number of elements found in each of the four competency categories in the *Collaborative Assessment Guide*, as well as possibly others outside this Guide.
- You must link your actions/behaviours to specific work occurrences, incidents or events (and, where appropriate, produce evidence through confirmation by others).
- *Effective* engagement at work assumes that you have been *actively* involved. This may include those situations in which you initiated interactions, meetings, ideas etc., or where you participated in / made a specific and pro-active contribution to a particular work / social activity.
- Provide evidence that your active involvement was acknowledged and appreciated by others in the workplace / team.

2.3 Learning Outcome Three (LO3)

Evaluate and critically reflect upon the project / work processes and outcomes within the context of the workplace environment

Criteria:

At the end of the placement/work period you have been able to ‘stand-back’ and review critically your work placement experiences, in a way that informs your future personal and professional development.

Evidence:

- You have provided a minimum of ten weekly learning journals - demonstrating on-going reflection
- At the end of the placement, you have reviewed and reflected upon comments, observations and initial reflections made in your weekly learning journals, to make further sense of your experiences.
- You have reflected on the comments, questions and suggestions made by the academic supervisor and host employer - both during and upon completion of your placement/work
- You have provided written reflective comments on your overall experiences (see Appendix: ‘Tips on critical reflections on work experiences’).
- There is evidence of exploring your own or others’ actions, emotions, and behaviour.
- You have critically evaluated your experiences, where appropriate, rather than accepting them uncritically.
- There is evidence that your reflections have been used to help inform your future personal and professional development needs and, where relevant, your future career preferences/direction.
- A *reflective writing style* is apparent in your portfolio, with narrative *description* generally supported by comment and analysis, for example using a ‘*what, so what, now what*’ approach.

2.4 Learning Outcome Four (LO4)

Identify, implement and evaluate a personal and professional development plan

Criteria:

Upon completion of their work placement, the student has self assessed their personal and professional learning goals, and competency strengths and weaknesses. This has informed and resulted in relevant changes to their CV, and the development of new goals and related strategies and performance measures.

Evidence:

- An original CV is provided in an appropriate format;
- A set of personal and professional learning goals (PPLGs) have been developed for the work / placement period;
- Upon completion of the work / placement you have self assessed these goals;
- You have provided an updated CV that incorporates the work placement undertaken, including an updated set of key strengths and attributes;
- Your updated CV is supported by a *summary worksheet* that identifies *how, where and when* you developed and demonstrated these key strengths and attributes;
- Your portfolio includes a new set of PPLGs for the next 6 – 12 months that relate to, and are consistent with, your self assessment of your original PPLGs and your end of placement reflections (see LO3); and
- Your new PPLGs are supported by:
 - the identification of relevant strategies you intend to adopt in order to achieve them, and
 - the identification of relevant performance measures (criteria) that will tell you whether your goals have been achieved.

Section 3.0 Specific Requirements for a Merit Pass grade

The criteria for a Merit Pass, together with evidential guidelines, are given below. If you believe you meet the criteria for a Merit Pass, you should:

- indicate this in your portfolio and
- ensure that you identify where the relevant evidence is in your portfolio to support the criteria

Criteria:

You have met all the criteria for a Pass Grade [per Section 1.0 and 2.0 above] and have also demonstrated *excellence* in both *work performance and critical reflections on experiences*. Details of how *excellence* can be demonstrated, for each of these, are given below.

3.1 *Work performance*

Excellence in work performance means that:

- Your performance can be demonstrated at an ‘outstanding’ level in at least two of the four competency categories⁹, and that
- The value of your work can be demonstrated at an ‘outstanding’ level, i.e., ‘exceptional work of a high standard that has immediate use to the organisation’.

Evidence to support excellence in work performance will include:

- An explanation as to why you believe your work and competencies were outstanding (other than just comments made by others at the *collaborative assessment* meeting). Such explanation should include how you discovered what the work expectations and standards were and how you knew you had met or exceeded them.
- Relevant comments / feedback from others who can attest to your competency and work performance. The comments / feedback must be specific, that is:
 - they relate to actual incidents, situations and documents that support excellence in your work and competencies used¹⁰ and
 - they indicate *how* the work has contributed to the organisation and *why* it is considered to be outstanding.
- Relevant work documents and materials

3.2 *Critical reflections on experiences*

Excellence in critical reflections on experiences means that:

- The reflective component of your portfolio (weekly learning journals and end of placement reflections) provides a compelling, honest and critical account of your *learning journey*.
- Your reflections provide a strong and seamless link between your original personal and professional learning goals (PPLGs), your work experiences, and the PPLGs you have set yourself for the next 6 – 12 month period.
- Your reflections demonstrate a thoughtful, ‘self-critical’ perspective that is well considered and balanced. This is evidenced by the use of an ‘internal dialogue’ (self questioning) to explore possible underlying motives, beliefs and/or values for your own and/or others’ views, behaviours and/or actions. The dialogue includes the context/situation in which the behaviour, actions etc. arose.
- Your reflections indicate that some ‘internal change’ has occurred – for example in having a greater awareness of: your thinking processes; your strengths and weaknesses; your own and others’ beliefs and values; and/or the way that you learn.

⁹ Per the *Collaborative Assessment Guide*

¹⁰ While one key source will be the comments made by the host employer on the Collaborative Assessment Form, this is not the only source. If you believe you have achieved an outstanding level, but your host doesn’t, you need to provide supporting evidence from other relevant sources (if such a situation arises you should seek advice from your Academic Supervisor).

Appendix: Tips on critical reflections on work experiences

- see Section 2.3 Learning Outcome Three (LO3)

The questions below are intended to help you think about what you have learned from your work experiences (you may think of others that you wish to add). The questions are grouped into three sections. Please note that responses to these questions should prompt reflective thinking and writing, not simple 'yes', 'no' or 'descriptive' answers.

1. General learning experiences

- What did you do to ensure you met your work objectives? For example: how did you find out what the work standards and expectations of the employer were?; what did you discover about your own and others' standards?; are there any other relevant insights and reflections you can make with regard to your achievement or otherwise of these objectives?
- Apart from the goals (PPLGs) and related competencies you set yourself, which other competencies proved to be important and why?; Were the competency statements in the collaborative guide helpful and appropriate?
- What did you learn about yourself and the way that you learn?
- Looking back on your work, what might you have done differently?
- How did work practices compare/connect with theory learned in your studies?
- How does your experience in this organization help you with future career choices and the type of organisation you may wish to work for?
- What achievements were you most proud of and why? What were you least proud of and why?

2. Personal learning experiences

- What were your prior expectations and how did this differ from your actual experiences?
- What was new to you, surprised you, pleased you, or annoyed you—why?
- How did you *feel* before and then during your work placement?
- Having completed this experience, how do you *feel* now? What does this tell you about yourself and your future work relationships?
- When did you feel comfortable in your role?
- When did you feel competent (e.g. can do the job without asking)?

3. Workplace culture, values and practices

- What is important to the organisation and individual staff members, i.e. what is the workplace culture?
- How did you 'tune in' to what was happening?
- Who were the 'gatekeepers of knowledge'? For instance, who was helpful (and maybe not-so-helpful) when you needed assistance?
- Who were the star performers? And what did you learn from them?
- How do work colleagues interact / communicate with each other?
- Is there a culture of giving and receiving constructive feedback? What would you change?
- What differences did you notice between experienced staff & new staff?
- What observations did you make about the organization's performance (e.g. financial, use of technology, people management)
- What did you notice about ethical values operating in the organization (e.g. are key values upheld or compromised; are there heroes or villains)?
- What jargon/processes/practices were new to you?

NB. Same Flowchart attached as shown on p. 456