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**Beginning Secondary Teachers
and Student Assessment:**
perceptions and experiences of
assessment as a pedagogical
challenge

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Abstract

This study investigated beginning secondary teachers' perceptions and experiences of student assessment. Three aspects were explored: beginning teachers' perceptions of assessment, the elements of assessment beginning teachers find most challenging and the extent to which professional support is addressing beginning teachers' needs, in relation to assessment. 'In-depth' interviews were conducted with six beginning secondary teachers. Participants ranged from less than one to five years experience and represented a range of subject methods. Assessment was perceived as a means to improve student learning, by providing a form of feedback concerning students' understanding and progress. Beginning secondary teachers however, did not perceive assessment as a means to critique and evaluate their own teaching practice. Beginning teachers also expressed a strong pedagogical belief that assessments should be interesting and engaging, however time constraints often inhibit the implementation of such assessments. The design phase of assessment proves to be the most challenging element of assessment. It appears that a teacher's tenure will determine what aspect of designing an assessment proves most challenging. In terms of professional support, there is a lack of professional development devoted to assessment and reporting. Generally beginning secondary teachers rely on advice from experienced colleagues.

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Introduction

Assessment is an integral component of teaching and learning and can be broadly defined as the process of gathering, interpreting and recording information relating to student progress and learning needs (Lambert & Lines, 2000). Knowing what to assess and how to assess, identifying where students are in the learning process and knowing where to proceed, then using the information to inform teaching, is a complex process (Parr, Glasswell & Aikman, 2007). As a preservice teacher, I have often heard experienced educators highlight that beginning teachers frequently struggle with assessment. Whilst on professional practicum, I encountered a beginning teacher who was experiencing difficulties assessing students and I began to question the extensiveness of this issue.

The aim of this study is therefore to gain an insight into beginning secondary teachers' perceptions of assessment as well as identifying the elements of assessment, beginning teachers find most challenging. In light of both these objectives the study additionally explores the degree to which professional support is addressing beginning teachers' needs in relation to assessment, and beginning teachers' evaluations of that support. It is assumed that by gaining an insight into beginning teachers' perceptions and experiences of student assessment, it will contribute to developing strategies which better support beginning teachers within the area of assessment and reporting. This study does not directly address the effectiveness of preservice programs. Findings however may highlight areas where preservice programs can better equip teachers with the necessary skills to effectively engage with assessment.

The three research questions which underpin this research study include:

1. What are beginning secondary teachers' perceptions of assessment?
2. What specific elements of student assessment do beginning secondary teachers find most challenging?

3. To what extent does professional support assist in addressing beginning secondary teachers' needs in relation to assessment? And what are beginning teachers' evaluations of that support?

These questions address a number of prevalent issues within current educational research. For example, The NSW Department of Education and Training, has recently highlighted the issue of assessment and reporting in schools as one of the 'priority research topics of interest 2007-08' (www.det.nsw.edu.au/media/downloads/research/priority/research.doc). The Department seeks to investigate teachers' use of assessment data and the effect on teaching practice. This study significantly addresses this targeted area of educational research. By exploring beginning secondary teachers' perceptions of assessment, this will reveal how beginning teachers implement assessment within their teaching and in turn, reflect their use of assessment data. Through identifying the most challenging elements of assessment, and the level to which professional support addresses beginning teachers' needs, this may indicate ways to better develop beginning teachers' skills in the use of assessment data.

In recognising the importance of assessment within educational processes, recently The NSW Department of Education and Training (DET) has formulated a guide to support teachers in assessment practice. The guide, *Quality teaching in NSW public school: An assessment practice guide* (part of the NSW Quality Teaching Framework) represents an initiative by the NSW Department of Education and Training to implement 'The Quality Teaching Model' within all aspects of classroom and assessment practice (DET, 2004).

When analysing the introductory section of the guide, it outlines the central purpose of assessment as, 'to provide information on student achievement and progress and set the direction for ongoing teaching and learning' (DET, 2004, p. 5). In articulating the purpose of assessment, Lambert and Lines (2004) propose that there is also an *evaluative role* of assessment, which reflects an assessment of teaching practices: 'to contribute to the information on which judgements are made concerning the effectiveness or quality of individuals and institutions in the system as a whole' (p. 4). The *Quality Teaching assessment*

guide attempts to distinguish between assessment for the purpose of ongoing learning and the evaluative role of assessment by stating that the guide should be implemented to 'support professional learning and practice' and 'not to be used for the purpose of teacher assessment...as any use of this purpose has the potential to undermine its value in supporting teacher professional learning and dialogue' (DET, 2004, p. 6). By making this distinction, the DET is recognising the implication of assessment when perceived solely as an evaluative tool by various stakeholders in education. By investigating beginning secondary teachers' personal perceptions of assessment, it is assumed that findings will reveal if the evaluative role or the ongoing learning purpose of assessment, will dominate participants' perceptions.

Literature Review

Three predominant issues arise within the literature that specifically relates to beginning teachers and their experiences with student assessment. Firstly, student assessment is identified as a problematic area for beginning teachers (Veenman, 1984; Wanzare, 2007); however the literature fails to elaborate as to which components of assessment beginning teachers find most challenging. Secondly, conflicting evidence exists regarding whether greater teaching experience translates to better assessment practice (Brown, 2004; Cizek, Fitzgerald & Rachor, 1995; Schempp, Tan, Manross, & Fincher, 1998; Wolfe & Smith, 1996). A general consensus within the literature does suggest however that beginning teachers endorse alternative methods to assess students, but often environmental constraints inhibit the implementation of such methods (Herrington, J. Herrington & Glazer 2002; Sparrow & Frid, 2001). Lastly, student assessment is identified as an area whereby beginning teachers should be provided with professional support. However, it becomes apparent that current literature within this domain is predominately present within practitioner sources which outline practical strategies in mentoring beginning teachers (Gordan, 2000; Turner 2007). Research studies are more prevalent in relation to investigating the need for preservice courses to better develop beginning teachers' skills and understanding of assessment and reporting (Churchill & Walkington, 2002; Weigle, 2007).

Reflecting on a recent study, Wanzare (2007) discusses the various challenges encountered by beginning teachers when experiencing the 'transition process' from university to the realities of the classroom. Wanzare isolates student assessment as a consistent challenge for beginning teachers. However when elaborating upon each challenge, assessment is only addressed in general terms. That is, assessments contributing to increased workload as they demand multiple lesson preparation. No discussion is therefore provided outlining the elements of assessment beginning teachers find challenging.

Veenam (1984) offers a comprehensive meta-analysis on the perceived problems of beginning teachers. By analysing 83 international empirically researched studies conducted

from 1960 to 1984 (excluding diaries, essays from beginning teachers and anecdotal descriptions), Veenam categorises the top eight perceived problems experienced by beginning teachers. 'Assessing students' work' and 'Relationships with Parents' were recorded as the fourth most prominent problems. 'Classroom discipline', 'Motivating Students' and 'Dealing with Problems of Individuals' were recorded as the top three (p.152). Veenam's systematic methodology in analysing secondary data and explicit criteria including features such as analysing studies that only used questionnaires, increases the validity of each 'problems' rank. In saying this however, similarly to Wanzare (2007), Veenam does not elaborate on the actual elements of 'Assessing Students' Work' that beginning teachers found most challenging. Alternatively when discussing 'Relationships with Parents', which received the same rank, multiple aspects of the findings was discussed: 'beginning teachers complained about parent's insufficient support for their ideas and parents' inadequate interest in the well-being of their children...' (p. 156).

Within the literature, assessment is regarded as encompassing four main purposes (Brown, 2004; Lambert & Lines, 2000; Peterson & Irving, 2007).

- a *formative role*: to provide feedback to teachers and pupils about progress in order to support future learning
- a *summative role*: to provide information about the level of pupils' achievements at points during and at the end of school
- a *certification role*: to enable selection based on qualification
- an *evaluative role*: to contribute to the information on which judgements are made concerning the effectiveness or quality of individuals and institutions (stakeholders)

In researching teachers' conceptions of assessment, Brown (2004) asserts that conceptions relating to assessment can be understood in terms of teachers' 'agreement or disagreement with the four purposes' to which assessments can be categorised (p. 310). Data was collated

from 525 primary school teachers and administrators, using a questionnaire based on the four main purposes of assessment. Findings revealed that regardless of a teacher's age, gender, and assessment training, on average participants agreed with the 'improvement' conception of assessment. This encompasses the notion of assessment data being used to improve teacher instruction and student learning.

Accompanying literature related to the purpose of student assessment is the notion that assessment has 'pedagogical value'. The 'pedagogical value' of assessment refers to teachers engaging with the process of gathering and interpreting evidence of their students' learning, as a way for teachers' to evaluate their own instruction (Huot, 2002, cited in Parr *et al*, 2007; Marsh, 2000). A study on the knowledge differences between experienced and novice teachers revealed that experienced teachers, within a range of seven to 26 years of experience, embraced the pedagogical value of assessment (Schemp *et al*, 1998). Extensive and multiple interviews revealed that whilst programming units of work, experienced teachers pre-planned and incorporated ongoing evaluations of student learning. Ongoing evaluations were used to identify learning difficulties as well as to inform subsequent teaching activities. For example, these evaluations included informal strategies such as clarification checks to make sure students understood the direction of the lesson, as well as circulating the room during peer work and discussions. Unlike experienced teachers, novice teachers, who were defined as graduating within a year, made no references to student assessment. Instead novice teachers' prioritised elements such as content and resources when programming units (Schempp *et al*, 1998).

Findings from Wolfe & Smith's (1996) study reveal that similarly to Schempp *et al* (1998), in-experienced teachers were primarily concerned with content coverage. However as they gained more experience, teachers began focussing on other aspects of teaching including evaluating student progress. It is at this point where participants embraced the pedagogical value of assessment; mirroring responses to that of the experienced teachers in Schemp's *et al* (1998) study.

New teachers also recognised that students were a valuable resource. They

acknowledge observing the reactions of their students, turning to them for feedback about classroom lessons and future activities, and evaluating students' work to assess their own teaching strengths (Wolfe & Smith, 1996, p. 84).

With a total of sixty participants, Wolfe and Smith (1998) conducted focus groups throughout participants' first year of teaching. By adopting a research design of interviewing participants at different points during their first year, it effectively highlighted the transition from self-survival concerns during the first months to issues related to pedagogy. These issues included less of an emphasis on classroom discipline and content coverage to that of assessment, curriculum and teaching styles. Ultimately therefore, both Schemp *et al* (1998) and Wolfe and Smith (1996) studies suggest that the greater experience, the greater understanding and effective application of assessment.

Findings in an earlier study (Cizek *et al*, 1995) on teachers' assessment practice found something different to that of Schemp *et al* (1998) and Wolfe and Smith's (1996). Adopting both surveys and interviews, Citez *et al* aimed to investigate characteristics of teachers' assessment practice. A diversified sample of 143 masters students representing different district regions and teaching experience, provided effective comparisons of the characteristics that may influence assessment practice. Interestingly, for teachers who had not had formal professional training in testing and grading, very few of the assessment practices were found to be related to years of experience. The only factor which highlighted disparity between beginning teachers' (1-5 yrs) and experienced teachers' assessment practice was the sourcing of assessments. A greater number of beginning teachers developed their own 'minor' class assessments such as tests and quizzes, whereas as experienced teachers were more likely to rely on commercially prepared assignments. Cizek *et al* found this a surprising result: 'given the time pressures faced by beginning teachers, we would have suspected the opposite (Cizek *et al*, 1995, p. 174).

The literature which focuses on beginning teachers' perceptions of assessment, highlights that often their pedagogical beliefs do not translate to classroom practice, due to environmental and school cultural constraints (Herrington, J. Herrington & Glazer 2002; Sparrow & Frid,

2001). Australian studies which have investigated this phenomenon have been subject-specific to mathematics. For instance, Herrington *et al* (2002) developed a multimedia program to enable preservice secondary Mathematics teachers to explore a variety of assessment strategies. Once on practicum both students and supervising teachers were interviewed. Analysis of the interview data revealed that students had a sound knowledge of assessment practice and employed a variety of strategies, as opposed to the predominant use of pen-paper tests. In a follow up study, Herrington *et al* found that after interviewing four graduates during their first year of teaching at different schools, all had experimented with alternative types of assessments. However often traditional pen and paper exams dominated. This was attributed to environmental and school cultural constraints such as requirements of the mathematics department, classroom management issues, time management in developing and executing diversified assessments and concerns related to the suitability of certain assessments.

Unlike Herrington's *et al* study who interviewed four secondary Mathematics teachers, Sparrow & Find (2001) investigated the first-year experiences of four beginning teachers of primary Mathematics. Participants' experiences concerning student assessment changed during the year as they gained more experience. For instance, in the beginning of the year, Sparrow and Frid (2001) found that although participants endorsed alternative assessment strategies to 'pen and paper exams', such as journal writing, portfolios and performance tasks, teachers were reluctant to implement them due to a lack of pedagogical knowledge and environmental constraints: 'it appeared that the teachers did not see these learner focussed assessment strategies as viable within their situations because they produced information in a form that didn't they know how to use...tests were quicker to plan and administer' (p. 20).

Evidently, similarly to Herrington *et al* (2001), time management arose as an environmental constraint that inhibited beginning teachers from experimenting with alternative methods of assessing. Sparrow and Frid (2001) however, also highlight a lack in pedagogical knowledge in alternative assessment strategies. It was only during the latter half of the year, that participants began experimenting with alternative forms of assessments; this change being

attributed to discussions with experienced colleagues. This finding therefore supports the notion of greater teaching experience translating to more effective application and understanding of student assessment (Schemp *et al*, 1998, Wolf & Smith 1996). It could be argued that both Herrington *et al* (2002) and Sparrow and Frid (2001) sample size of four participants would have contributed to producing rather limited findings. Sparrow and Frid (2001) effectively reduce this limitation by adopting a mixture of qualitative techniques, as opposed to Herrington *et al* (2002) who solely adopt the interview. By interpreting data from multiple sources such as interviews, journals and observations, this provided a more extensive representation of the participants' experiences with assessment.

As well as investigating the most challenging elements of student assessment and beginning teachers' perceptions of assessment, scope also exists for exploring the degree to which professional development assists beginning teachers in assessment practice. Literature within this domain is limited to publications within practitioner sources that offer practical strategies in mentoring beginning teachers. Gordon (2000) suggests that beginning teachers should engage collaboratively with experienced teachers when developing assessment tasks and marking criteria's. This is to ensure that assessments are both valid and reliable. Turner (2007) similarly endorses collaborative support systems for beginning teachers by suggesting that mentors should expose beginning teachers to a variety of assessment methods and options for reporting.

From the studies already addressed, it is evident that beginning teachers are not exposed to an effective professional support system (Sparrow & Frid 2001; Herrington *et al*, 2002; Citez *et al*, 1995). Citez *et al* reported that it was apparent in teachers' comments that there was a lack of professional collaboration on matters of assessment:

Perhaps many teachers are more active in discussing, planning, interpreting and coordinating assessment activities. However the ones sampled who commented on collaboration provided a picture of independence... (Citez, 1995, p. 172).

Both Australian studies reported that often professional support was not formally provided in schools. It appears that few induction programs exist and often beginning teachers rely on initiating conversations with experienced teachers (Herrington *et al* 2002; Sparrow & Frid, 2001). As a result, professional support needs to be more focussed and explicit. Herrington *et al* (2002) argue in order to prevent beginning teachers from reverting back to traditional modes of assessment, professional support needs to develop skills aimed at minimising environmental constraints. As opposed to theory-based development, in that it simply re-addresses university content.

Herrington's recommendations make the assumption that at universities, undergraduate programs are adequately addressing the topic of assessment, and that the onus is upon schools to offer extensive practical professional development. Interestingly, Churchill & Walkington (2002) found in the initial stages of their longitudinal study on beginning teachers' learning, preservice teachers felt that 'university-course work contributed least to their levels of readiness to assess and report on student learning' (p. 4). 'Asses and report' included elements such as planning and conducting assessment, providing feedback to students, reporting on student learning and using the outcomes of assessment to inform program planning. The methodology adopted was a combination of surveys and questionnaires and the findings were presented at the 2002, Australian Teacher Education Association. Although the study was not located within a peer reviewed journal, the study's systematic methodology in collating and interpreting the data was sound. In addition to general teacher education programs, Teaching English as Second Language (TESOL) graduate programs have also been criticised for not adequately addressing student assessment (Weigle, 2007). TESOL graduate programs do not require students to undertake a course in assessment. As a result Weigle (2007) argues that preservice teachers fail to develop skills in designing reliable and valid assessments as well as marking and communicating results. This will inevitably result in beginning teachers' entering the classroom 'without a thorough grounding in assessment issues' (p.207).

Evidently scope exists for investigating beginning teachers' perceptions and experiences with student assessment. Within the broader literature of beginning teachers, assessment is

identified as a general problematic area. Identifying the specific elements of assessments that are found to be most challenging will extend this body of research. In addition to this, further exploration is warranted regarding the extent to which ones' perception and environmental constraints influence the types of assessments implemented in the classroom. In relation to professional development and assessment practice, the literature is often limited to practitioner sources. Furthermore, research studies which have investigated beginning teachers' experiences do suggest that there is general lack of professional development programs which address assessment issues.

Methodology

Research concerning beginning teachers has been conducted using both qualitative and quantitative methodologies. These have ranged from interviews (Schemp *et al*, 1998; Sparrow & Frid, 2001), focus groups (Wolfe & Smith, 1996) and questionnaires and surveys (Brown, 2004; Churchill & Walkington, 2002). Questionnaires best facilitate a larger sample size. This is evident when comparing Churchill & Walkington's study (2002) who surveyed 67 participants as opposed to Schemp *et al* (1998) who interviewed a total of ten participants. To gain further insights however, research studies that had primarily adopted quantitative methods such as questionnaires and surveys to investigate teachers' experiences with assessment, commonly re-addressed data through follow up interviews (Brown, 2004; Citez *et al*, 1995; Herrington *et al*, 2002).

In light of these reflections, this research adopted a qualitative methodology of 'in-depth' interviews. A qualitative approach was considered the most appropriate methodology to gathering insightful information, regarding beginning teachers' perceptions and experiences of student assessment. Seidman (2006) advocates the appropriateness of qualitative methodologies to educational research; 'the primary way a researcher can investigate an educational organisation, institution, or process is through the experience of the individual people, the "others" who make up the organisation or carry out the process' (p.10). In selecting 'in-depth' interviews, this research supports the objective of qualitative research in aiming to understand participants from their point of view; the meaning of events and actions as expressed by the participants (McMillan, 2000). In essence the underlying epistemology underpinning the study's chosen methodology is that of constructionism; the notion that multiple realities exist and that different people construct subjective meaning from the same event (Crotty 1998; McMillan 2000). The 'in-depth interviews' with the six participants will therefore enable the researcher to gain insight into the varied perspectives and experiences of beginning secondary teachers and student assessment.

Site and Sample

All participants were interviewed from one high school: Mt Pat High (pseudonym) which is located in the northern suburbs of Sydney. Participants were sampled by Opportunity Sampling, which is sampling carried out through reasons of convenience and accessibility (Burns, 2000). Mt Pat High was selected due to its proximity as well as having a number of beginning teachers within a range of subject methods. Formal permission was granted by the University of Sydney Human Ethics Committee, the Catholic Archdiocese of Broken Bay and the school principal (Appendix I). Beginning teachers in the study are defined as teachers within one to five years' experience. This criterion was determined from a recent parliamentary report, which inquired into teacher education (House of Representatives Standing Committee on Education and Vocation Training, 2007). The report stated that the first five years of teaching represented the highest rates of attrition, with 25% of beginning teachers leaving the profession. The report concluded that beginning teachers require greater professional support within the first five years of teaching.

A varied range of teaching experience and subject methods was ensured during the sampling, as these two factors were regarded as influential in shaping a teacher's perception and experiences of student assessment (Herrington *et al*, 2002; Schemp *et al*, 1998; Sparrow and Frid 2001; Wolf & Smith, 1996). Participants included one within their first year of teaching, two participants within their second year, two within their fourth and one participant within their fifth year of teaching. Subject methods included, English, History, Geography, Languages, Mathematics and Religious Education. More specific information about each participant is presented in the results section.

Data Gathering/Collation

Heron (1981) argues that the original and archetypal paradigm of human inquiry is two persons engaging in a conversation of questions and answers:

The use of language, itself,...contains within it the paradigm of cooperative

inquiry; and since language is the primary tool whose use enables human construing and intending to occur, it is difficult to see how there can be any more fundamental mode of inquiry for human beings in to the human condition' (Heron, 1981, p. 26 cited in Seidman, 2006, p. 8).

Interviewing therefore can be understood as a natural and enriched mode of inquiry. Unlike questionnaires, interviewing allows the researcher to follow up interesting responses and investigate underlying assumptions and motives through probing and prompting the interviewee (Cohen, Manion & Morrison, 2007; Robson, 1993). Questionnaires are an appropriate technique to collect data when the area of study is supported by a large body of research, whereby direct and valid questions can be formulated. A good example of this is Brown's (2004) quantitative study on teachers' conceptions of assessment. Brown was able to develop a questionnaire, based on the four purposes of assessment; formative, summative, certifying and evaluative. These purposes had been derived from an extensive amount of literature. As there is limited literature in regards to the elements of assessment beginning secondary teachers find most challenging, unlike 'in-depth interviews', questionnaires would be unsuitable in adequately addressing the aims of this study. On the other hand, within methodological literature, the major weakness associated with interviews is that they are labour intensive. This includes, costly in time to organise and interview participants as well as transcribe and analyse data (Bell, 2005; Cohen *et al*, 2001; Gillham, 2005; Seidman, 2006). Taking this into account, in order to complete this dissertation within practical boundaries, the six participants were interviewed once for approximately 40 minutes.

The interviews followed a semi-structured format, directed mainly by open-ended questions to offer extensive opportunities to probe and prompt the interviewees as well as to encourage cooperation and rapport during the interview (Appendix II: interview schedule). Along with the openness in the level and range of responses, this format still provides a structured focus, facilitating a systematic approach during the analysis of the data (Gillham, 2005; Kvale, 1996). It has been argued that although the openness of interaction in the interview is a positive factor, it similarly can be a disadvantage in that the content is prone to subjectivity and bias on the part of the interviewer (Cohen *et al*, 2001).

To reduce this limitation and hence increase the validity and reliability of the interview, piloting is recommended. Gillman (2005) states that piloting should be conducted in two stages: the first stage is known as the 'pre-pilot' stage, where the researcher asks for general feedback from voluntary participants (who are not participating in the study), in relation to the relevance and validity of the questions. With the same volunteers, the second stage of piloting is trialling the actual interview process, whereby the interviewer rehearses in not imposing their personal opinions upon the interviewee. Due to the time constraints, this study only adopted the 'pre-pilot' stage. Three volunteers were chosen due to their similar teaching experience to that of the actual research participants. They were informally briefed on the purpose of study, and asked to critique the questions. As a result, one question was omitted and others were changed in terms of their order and focus. For example, in the beginning of the interview, participants were originally asked to generally describe their first year experiences. This question was seen as irrelevant to the purposes of the study, and hence rejected. Bell (2005) states that although pre-piloting questions with non-participants is a 'rough-and-ready-method', this process does assist in achieving some degree of reliability and validity during the actual research interviews (p.104).

In order to extensively address the aims of this study, the interview schedule was designed according to the three underpinning research questions:

1. What are beginning secondary teachers' perceptions of assessment?
2. What specific elements of student assessment do beginning secondary teachers find most challenging?
3. To what extent does professional support assist in addressing beginning secondary teachers' needs in relation to assessment? And what are beginning teachers' evaluations of that support?

Within the first section, questions were aimed at investigating the participants' perceptions of assessment. Participants were asked to describe the various stages of planning and

programming a unit of work, and the aspects of teaching and learning they prioritise during programming. These questions were designed to gauge whether the participant would independently raise the issue of assessments and to evaluate the degree of importance they place on them. Participants were then asked to articulate the purpose of assessment and provide examples of the types of assessments they implement.

In order to investigate the challenging elements of assessments, participants were asked to identify and explain the stages involved in implementing an assessment and whether they had found any of those stages challenging or problematic. When investigating the extensiveness of professional support in supporting beginning teachers' needs within the area of assessment, participants were asked to describe both informal and formal examples. Informal examples consist of advice and conversations with experienced colleagues and formal examples consist of seminars and off-site development days. All participants came from the same school, and therefore were exposed to similar professional support. In order to reduce this limitation, participants' described not only their experiences of professional support, but their evaluations of that support; it what ways had the support benefited their assessment practice, as well as their opinions concerning the areas of assessment that professional development should be further directed towards.

Data Management Strategies

Two data management strategies were used in this study:

- Digital Recorder
- Transcripts

All interviews were conducted on site at Mt Pat High, and were directly recorded onto a digital recorder and transcribed verbatim (Appendix III: interview transcripts). The six recorded interviews were uploaded onto a computer and saved as separate files. To ensure no data was lost, each interview was burnt onto a separate c.d. As interviews were scheduled over a period of four to six weeks, interviews with earlier participants were transcribed

concurrently as other participants were being interviewed. This allowed for both early critique and reflection on the data.

Data Analysis

When adopting a qualitative methodology such as interviews, reliability is perceived as the degree to which consistency is maintained during the interviewing, transcribing and the analysis of data (Bell 2005; Kvlæe 1996). Analytic coding combined with an induction approach was used systematically to analyse the data. Analytic coding is a progressive process of sorting and defining sections of collected data (Glesne & Peshkin, 1992). When analysing the interview transcripts, data was initially sorted into three categories:

- a) Teachers' perceptions of assessment
- b) Elements of assessment that beginning teachers' found most challenging
- c) The level of professional support beginning teachers have been exposed to, and beginning teachers' evaluations of that support

Within these three categories an induction approach was used as a way to analyse emerging themes and issues. Inductive data analysis entails generalisations from synthesising gathered information; the researcher begins to move towards more general statements or ideas based on the specifics found in the interview data (Lichtman, 2006 ; McMillan, 2000). Main themes and sub-themes were determined by reading over the specifics of the interview transcripts. These themes were then considered in light of their commonalties and differences and the findings of the research determined. This process of analysing the data was applied across six interviews, enhancing the reliability of the study's research findings.

Results

This section presents and describes the research findings of the six interviews. The section begins with biographical information on each of the participants (to ensure the anonymity of participants, pseudonyms have been used).

Table 1: Descriptions of Participants

Name	Yrs Teaching	Full Time/ Part Time	Yr Graduated	Qualified Subject Methods	Current Subject Methods
Ben	Six months (first school)	P/T	2007	Business Studies, Commerce Economics and Religious Education (R.E)	Junior Geography and Junior History
Karly	Two (taught first year overseas)	F/T (maternity leave position)	2006	Japanese and English as a Second Language (ESL)	Junior/Senior Japanese
Ellen	Two (second school)	F/T	2006	English and R.E	Junior/Senior English and Junior R.E
Allan	Four (third school)	F/T	2004	History, Geography, Society & Culture, R.E.	Junior Geography and Junior History
Luke	Four (second school)	F/T	2004	Mathematics and R.E.	Junior/Senior Mathematics
Susan	Five (first school)	F/T	Undergrad in 1984, then Dip Ed. 2003.	Science & Mathematics	Junior & Senior Mathematics and Junior R.E.

Analysis of the Research Data

The interview data was sorted and coded into three categories. These categories included beginning teachers' perceptions of assessment, elements of assessment beginning teachers' find most challenging and the level of professional support beginning teachers have been exposed to, and beginning teachers' evaluations of that support. Within these three

categories, an induction analysis of the data, allowed specific statements to be generalised within broader themes. These broader themes will be described within each of the three categories.

Beginning teachers' perceptions of assessment

In analysing the interview data related to participants' perceptions of assessment, three themes emerged. The first theme is beginning secondary teachers' perception of the purpose of assessment. Second, are the types of assessments beginning secondary teachers' implement, and the third theme encompasses the factors influencing the types of assessments beginning teachers implement.

Perception of the purpose of assessment

Both teaching experience and subject methods were influential in determining participants' perceptions of the purpose of assessment. All participants emphasised that the purpose of assessment was to provide a form of feedback to the teacher. Teachers from the Humanities articulated a formative-style of feedback. This included an emphasis on assessing during the teaching of the topic; continually monitoring students' understanding and progress as well the assessment providing opportunities for further learning. For example Ellen stated:

I think the purpose of assessment is to put in practice an effective means of monitoring students' understanding of something. I think a quality assessment would ensure students are actually learning in their assessment...not just rehashing information they've been taught

Alternatively the Mathematics teachers emphasised a summative-style of feedback, whereby assessments provided information on students' understanding and progress at the end of the learning process; an evaluation of the content that had been taught, as opposed to what was currently being taught: 'I want an assessment to see whether or not the kids have covered the content'.

Participants with greater than three years experience, additionally perceived assessment as facilitating comparisons between students' progress. This perception is present in Luke's reflections: 'basically see where they are for themselves and also to compare to other students'. Allan went further to state comparisons on a regional scale: 'assessment is important...in linking my classes' performance to the rest of the form and then also state wide'. Participants with less than three years experience did not make any references to using assessment data for the purpose of comparing students.

Types of assessments implemented

In discussing the areas of teaching and learning that participants prioritised when programming unit-topics, organising resources and content dominated responses; textbooks and the Internet were referred to as the main sources to access a range of resources. Three out of the six participants independently raised the implementation of assessment. This was in relation to planning assessments early in order to prepare the students adequately, as well as organising an activity to assess students' prior knowledge. For example, Susan endorsed 'pre-tests' for Year 7 mathematics students in order to 'see where the kids are at'. Similarly to Susan, Ellen implemented an activity to Year 7 students when introducing the topic of *Images of God* in Religious Education. Ellen believed this activity allowed her to evaluate students' personal perceptions of God, prior to teaching the prescribed content.

All participants provided extensive discussion on procedures relating to the implementation of formal assessments including, half yearly and yearly exams and mid-term assignments. Formal assessments were centrally timetabled for all departments and were designed according to an allocation system; each teacher was allocated a year group and was responsible for designing their major formal assessments. Participants' responses however were limited in relation to the discussion of different types of informal assessment. A large emphasis was placed on organising informal ongoing tests for the purpose of students' revising and practicing subject-specific skills. Four out of the six participants (from a range of subject methods) frequently implemented skill-based tests. These included geography skills, grammar structures in languages and comprehension skills in English. Only one

participant independently described other forms of informal assessment: 'I use a lot of informal assessment... questioning...that can create some classroom discussion...different activities like mind maps'. Once prompted, the other participants described similar strategies such as questioning students; however a large emphasis was still placed on organising informal quizzes which revised subject-specific skills.

When implementing assessments, the importance of providing feedback to students was emphasised by four participants. For example Ellen stated that feedback allowed students to evaluate their own progress:

I think feedback is really vital for what they get out of the unit. So they can see where they've gone wrong, what they need to do to improve, and where they are doing really well.

Karly and Susan additionally noted the importance of assessment in providing a form of feedback to parents. Karly described procedures in contacting parents to inform them of both poor and good results. Alternatively, Susan emphasised parent's use of assessment: 'parents want an assessment to see how well the kid's doing...but also to see where they are in class'.

Factors influencing the types of assessments implemented

In addition to discussing the types of assessments implemented, participants discussed the factors that influenced the types of assessments employed. Ensuring assessments were interesting and engaging, dominated participants' responses. Interesting and engaging assessments were seen to motivate students. For example at one point, Ben explained how he would have modified an assessment: 'I would look for what they're interested in...something that's going to grab them rather than something that they're really going to hate doing'. Ellen expressed a similar belief, 'if it's a task that they're not really going to engage in...not going to find interesting...I think (the assessment) it lacks of motivation'.

Four out of the six participants from a range of subject methods, associated interesting and engaging assessments with providing students the opportunity to demonstrate their understanding and express their talents. The Mathematics teachers in particular expressed a desire to put into practice alternative assessments from traditional 'pen and paper' exams. Luke explained that alternative assessments would include practical elements which would provide students who cannot perform in exams, an opportunity to demonstrate their understanding:

It's just another avenue for them to look at and show their skills
..Because I've got kids in my 9:3 class, they'll put their hand up
and answer every single question...yet come ten minutes later
when I want them to do it on paper and they'll have no clue.

Susan expressed similar concerns to Luke: 'there are some kids that just can't do exams but they may have the ability... as soon as you put an exam in front of them they freak'. In describing a specific example of an alternative assessment, Susan additionally noted it would allow students to appreciate the practical relevance of mathematics:

So say you're doing measurement in Yr 8..they would have to measure
the court. They would have to work out angles... it would have to be
scaled... then they can actually see that maths is relevant. I think they
have to see its hands on

When asked why traditional 'pen and paper' exams currently dominated, participants responded with the issue of time restrictions: 'it's just easier a 'pen and paper'...that's not laziness we just don't have the time at the moment'. HSIE teacher Allan, similarly discussed the issue of time restrictions:

I would love for them (the students) to show their understanding of
content any way they feel creatively inclined. But realistically
there just isn't the time for that. And also time to mark those and
and provide them with feedback.

Across all subjects, teachers were given prescribed programs which outlined the type and timing of formal assessments. Participants did not regard this as a restriction because they believed that if necessary they could discuss modifications with senior staff. The Mathematics teachers did however elude to a previous head-coordinator whose endorsement of 'pen and paper exams' was highly influential in determining the types of assessments they implemented.

Elements of assessment beginning teachers' find most challenging

In analysing interview data related to the elements of assessment beginning teachers' find most challenging, two themes were identified. The first includes the most challenging elements of assessments and second, the effectiveness of pre-service education in addressing assessment issues.

Most challenging elements of assessment

There was a strong consensus in relation to the elements of assessment that participants found most challenging. Five out of the six participants described stages associated with designing assessments most challenging. A teacher's tenure was influential in determining what specific aspects of designing an assessment proved most challenging. Ben and Karly described general problems in relation to knowing what task to set and the wording of questions: 'writing it up from the start... it takes a lot longer for a beginning teacher because we haven't got the knowledge; we haven't got the experience'. Ben expressed similar difficulties to Karly:

writing the assessment can be tricky, you don't know what you're doing, trying to nut out how it all goes...like the wording of questions...what you actually ask the kids to do.

In addition to this, both participants described challenges associated with classroom management and procedural issues. This included 'chasing' students who had not completed

assessments and contacting their parents/guardians. As well as completing forms such as misadventure and non-complying (behavioural) forms.

Participants with greater than three years experience discussed the most challenging elements of assessment according to their year's of experience. Similar to Ben and Karly, Luke initially found knowing what task to set, and the wording of questions most challenging:

First year out was pretty tough, just coming in blank with nothing
...it does become easier, like once you've taught it a few times
you know the sought of questions you're going to be asking

The most challenging aspect for participants with greater than three years of experience was ensuring that the assessment task effectively targeted syllabus outcomes. Through their responses, it became evident that assessment had become more problematic; For example, Allan explained in detail his reasons why setting a task can be difficult: 'trying to find a balance between tasks that aren't written...but also tasks that allow them to show their knowledge and meet outcomes. Luke described similar difficulties, in that he has found it hard to ensure that each section of an exam targeted an outcome: 'that's what I really found difficult over the past week is trying to match up these outcomes with each kid's ability...knowing exactly which ones have been covered'. Reflecting on her past assessments, Susan explained a strategy that she had recently adopted to overcome this challenge:

I've looked at some papers that were written by me three years ago
and they're really crap...they were asking the same thing in
different ways. It wasn't actually testing the syllabus...so I think
you got to have a tick box, that's what I do now....tick the outcome,
to make sure I've covered it in exams

One participant found marking assessments the most challenging. This was in relation to lacking the experience in 'knowing what to look for'. Marking criterias were also referred to as being 'nightmarish', in ensuring they adhered to outcomes. The other participants however had not found marking challenging in comparison to designing an assessment. Only when prompted, Ben referred to the wording of marking criteria's as a 'tricky task'.

Pre-service Education

When participants were asked if they felt their pre-service education prepared them for assessing work, four participants responded positively. When prompted for details, participants discussed tasks they had completed which were related to designing assessments. This included programming assessment, creating tasks, addressing syllabus outcomes, scaffolding questions and creating marking criterias. Allan believed, however, that university did not prepare him in creating assessments within practical circumstances:

In the undergraduate course we were encouraged to be as creative as possible and to try have as many different learning styles... Which is all very fine and good...but it doesn't mean a lot when you enter the school situation...I would of liked to have more experience...setting the assignments but with the restrictions and the constrictions of the school situation.

Ellen, who had found marking the most challenging element of assessment, explained that marking was addressed at university. However believed it was only experience that could prepare a beginning teacher for marking on a large scale: 'we did (marking) random samples of student work...I don't think anything will prepare you for marking one hundred English essays except for experience'. Disagreeing with Ellen, Allan believed further practice in marking would have been beneficial: 'I would have liked to have more experience in the actual marking of assignments...just being able to arrive at a mark through a marking criteria'.

The level of professional support beginning teachers have been exposed to, and beginning teachers evaluations of that support

Within this category of examining participants' experiences of professional support in relation to assessment, two broad themes emerged. The first theme includes informal professional support which primarily consists of advice from experienced colleagues. The second theme includes references to professional development in relation to the *Quality Teaching assessment guide*.

Informal professional support

All participants had sought advice from experienced teachers in relation to assessment. Advice from experienced teachers was referred to as 'ongoing', 'daily' and 'the best way of learning'. Five participants sought advice about designing assessments; advice and ideas were primarily concerned with methods to assess students: 'whether a particular design is practical...whether students can engage in the task'. Ellen believed advice during the design phase of assessment was most pertinent to beginning teachers: 'you need direction, otherwise it's too broad. It's like "where do I start?"' Participants were also satisfied with the responsiveness of their colleagues, and justified their responses by explaining they had been given a range of resources to assist them including past papers and questions. Allan additionally noted that experienced colleagues had assisted him developing a more effective way of critiquing assessments:

I'm grateful for this with experienced teachers...if you are going to be critical of an assessment...looking at what worked and what didn't, it has to be done very soon after it was done...picking it to pieces in quite detail...using it as a platform for further assessment creation

Throughout the interviews references were made to colleagues in relation to the importance of collaborative marking in order to achieve consistency and maintain fairness. Four participants from a cross representation of experience and subject methods, emphasised the importance of collaborative marking: 'collaboration in the end is the key...you have to get together (to discuss) "what exactly are we looking for?"'. The Mathematics teachers both described the process of marking papers in sections, as a way to ensure fairness and objective marking. Unlike responses relating to designing assessments, within the discussion of collaborative marking, there was no evidence of participants feeling inadequate due to a lack of experience or knowledge.

Professional development and The Quality Teaching assessment guide

In 2007 Mt Pat High organised a professional development seminar on the Quality Teaching Framework in relation to assessment and reporting, and a second seminar in 2008 which loosely addressed the development of marking criterias. This was the only form of professional development participants had experienced in relation to assessment. Alternatively, subject-specific professional development was more prevalent amongst participants.

Participants' responses in relation to the usefulness of the *Quality Teaching: assessment guide* was divided according to subject methods. The literary-based teachers found it a useful tool in designing meaningful tasks for students; tasks that facilitated 'deep knowledge' and 'deep understanding' as well as assisting in the creation of marking criteria's. Ellen stated that she used the framework as an evaluative tool to assess her own teaching practice:

'you can look at it and say 'am I doing this? 'Am I getting the best out of the kids?' 'Am I making a difference?' It's so easy not too. You can give a child a meaningless activity that stretches it out...just to keep them occupied'.

The Mathematics teachers did recognise the value of the framework in that it aimed to create more meaningful tasks, however they believed it was less relevant for Mathematics: 'how do you code a question that's says "solve $2x + 3 = 8$?"' Luke stated that he believed it was useful when creating higher-order literacy-based mathematic questions. However unlike the Humanities teachers, Luke had not actively implemented the framework in his practice: 'We studied it pretty intensely in our Maths subjects at uni but realistically I haven't used it in regards to my assessments'.

Participants were asked what areas of student assessment they felt professional development should target. Responses reflected the elements of assessment that participants had described as most challenging. This included professional development being directed towards the creation of assessments; designing and preparing tasks and linking tasks to syllabus

outcomes. Two participants also stated that professional development should address ways in which to implement alternative forms of assessments for the purpose of making them more interesting and engaging: 'advice on any other ways beside 'pen and paper' exams'. Ellen, who believed marking was the most challenging element of assessment for a beginning teacher, felt further development should be directed towards the development of marking criterias.

Discussion

This section presents and describes the major research findings in relation to current literature. These research findings are examined within the same three major categories that were used to analyse the interview data. These three categories include: beginning teachers' perceptions of assessment, elements of assessment beginning teachers find most challenging and the level of professional support beginning teachers have been exposed to, and beginning teacher's evaluations of that support.

Beginning teachers' perceptions of assessment

As previous research has revealed, regardless of age, gender, and assessment training, teachers endorse the 'improvement' perception of assessment; the notion that assessment data can be used to improve student learning by providing a form of feedback to both teachers and students (Brown 2004). In addition to this, the research findings of this study reveal that greater teaching experience translates to perceiving assessment as not only a tool to improve student learning, but additionally as a comparison tool; a method to compare students' progress on both a classroom and state-wide level.

The Department of Education and Training highlights assessment and reporting as a 'priority research topics of interest 2007-08' (www.det.nsw.edu.au/media/download/research/priority/research.doc) and it aims to investigate teachers' use of assessment data and the effect on teaching practice. The research findings of this study suggest that beginning teachers perceive assessment data as a way to evaluate and monitor student progress and understanding. For example this included implementing regular skill-based quizzes/tests for revision purposes, as well designing pre-tests to gauge students' prior knowledge. Participants also described the importance of providing critical feedback to students, in order to inform students of their strengths and weaknesses. However no references were made in relation to using student assessment data as a means to critique and evaluate beginning teachers' own

teaching practice; the 'pedagogical value' of assessment (Huot, 2002, cited in Parr *et al*, 2007; Marsh, 2001). It is interesting to note that within Marsh's (2000) *Handbook for Beginning Teachers*, emphasis is placed on the pedagogical value of assessment: 'assessment must communicate how to make instruction more effective...reasons why lessons fly or flop' (p. 241). From the research findings of this study as well as from previous research, it is evident that beginning teachers do not perceive and utilise assessment data as a means to evaluate their own teaching strengths and weaknesses (Schemp *et al* 1998; Wolfe & Smith 1996). It should be noted however that in this study Susan was an exception as she did use assessment to evaluate her own teaching. Interestingly, Susan has been teaching the longest.

Another area whereby participants provided limited responses was in relation to employing a variety of informal assessment methods. Participants emphasised the use of weekly informal quizzes in order to revise subject-specific skills. It was only until prompted that the majority of participants described alternative methods such as questioning and class discussions. This could perhaps suggest that beginning teachers do not perceive strategies such as questioning and class discussions as forms of assessment, but rather techniques to keep students focussed and engaged. If teachers do not purposefully plan questioning techniques in the classroom as a form of assessing students' understanding and progress, it will inevitably result in superficial dialogue; that is questions used to fill in time and demanding no higher-order engagement (Black, Harrison, Lee, Marshall & William, 2004).

One of the most profound findings related to beginning teachers' perceptions of assessment, was the need for assessments to be interesting and engaging. These assessments were regarded as most pertinent in motivating students as well as facilitating a meaningful learning experience. The Mathematics teachers in particular stressed the importance of introducing alternative forms of assessments from traditional 'pen and paper' exams. It was emphasised that alternative/practical assessments allowed students to see the relevance of mathematics as well as offering an opportunity for other learners to excel and demonstrate their understanding of the content. This was an interesting finding as past Australian research studies which investigated beginning teachers' experiences with assessment only focussed on Mathematics (Herington *et al* 2002; Sparrow & Frid 2001). This perhaps suggests that due to

the nature of the subject, beginning Mathematics teachers encounter greater difficulties in employing assessment methods other than traditional exams.

Although participants desired to implement a range of alternative assessments, many felt restricted by time constraints and to a lesser extent resources. Past studies similarly revealed that often beginning teachers' pedagogical beliefs do not translate to classroom practice due to practical constraints such as time (Herington *et al* 2002; Sparrow & Frid 2001). These studies however also made reference to school cultural constraints including the suitability of alternative assessments and departmental issues. Participants in this study only referred to time as the major constraint in implementing alternative forms of assessments.

Elements of assessment beginning teachers find most challenging

This study confirms the acknowledgment of assessment being a challenging area for beginning teachers (Veenam 1984; Wanzare 2007). The current literature fails however to identify what components of assessment beginning teachers find most challenging. The research findings of this study reveal the designing stage of assessment as the most challenging for beginning teachers. It also becomes apparent that teaching experience is influential in determining what aspect of designing assessments proves most challenging.

Teachers' within one to two years of teaching found that due to their lack of experience, knowing what task to set, including the wording of questions and ensuring assessment was both appropriate and relevant, was most challenging. These teachers also described additional challenges related to classroom management issues. This included having to continually follow up students who had not completed assessments as well as knowing the formal procedural such as contacting parents/guardians. This additional finding aligns with literature related to beginning teachers' general experiences, where a consensus exists regarding classroom management as the initial greatest challenge for beginning teachers (Veenam 1984; Wanzare 2007; Wolfe and Smith 1996; Zepeda & Ponticell 1996). For teachers with greater than three years experience, there was no evidence of assessment related

classroom management issues. For these teachers however, designing assessments had somewhat become more problematic; it was now ensuring that assessments were valid in that they adhered to syllabus outcomes and upon completing the assessment students had adequately met prescribed outcomes.

Preservice programs have been identified for not preparing beginning teachers adequately within the area of assessment and reporting (Churchill & Walkington, 2002; Weigle, 2007). Participants in this study generally reported positively in relation to preservice programs preparing them for assessment and reporting issues. Upon justifying their responses, participants described tasks that were aimed at practising designing and programming assessments. It must be reiterated however, that the designing stage was identified as the most challenging element of assessment once participants began teaching. Therefore in supporting the current literature on this matter, the effectiveness of preservice programs in preparing beginning teachers for student assessment, is questionable.

The level of professional support beginning teachers have been exposed to, and their evaluations of that support

The research findings reveal that advice from experienced teachers was the most common and frequent form of professional support in relation to assessment. Participants value advice from experienced teachers, in particularly in relation to the most appropriate and effective methods to assess students. Similarly to the Australian research studies, there was a lack of formal professional support such as seminars and guest speakers in addressing issues of student assessment and reporting (Herrington *et al* 2002; Sparrow Frid, 2001). It appeared that it was only through Mt Pat High that participants had been exposed to professional development in relation to assessment, and this was specifically related to the implementation of the NSW Quality Teaching Framework. Otherwise, within a formal context participants had primarily experienced subject-specific professional support.

The *Quality Teaching assessment guide* was designed by the Department of Education and Training to support teachers in the 'implementation and use of student assessment' (DET, 2004). The research findings suggest however, that subject method is influential in determining beginning teachers' perception in relation to the usefulness of the framework. Participants from the Humanities had actively implemented the framework within their practice. Referring to key 'buzz words' of the framework, such as 'deep knowledge' and 'deep learning', it was evident that they endorsed the guide and felt it was beneficial to their assessment practice. Alternatively, Mathematics teachers felt that the Quality Teaching Framework was not relevant to traditional 'pen and paper' exams which currently dominated the subject. If alternative forms of assessing became more prevalent within Mathematics, it would appear that the Quality Teaching Framework would be regarded as more applicable.

Unlike other research studies (Citez *et al* 1995; Herrington *et al* 2002), which emphasised a lack of professional collaboration on matters of assessment and reporting, Mt Pat High fostered a strong sense of collaboration. The research findings of this study suggest that beginning teachers deeply value collaborative marking as a means to mark consistently and fairly. It was interesting to note, that when discussing issues relating to designing assessments, participants expressed a sense of inadequacy in their knowledge, in comparison to their experienced peers. This contrasted however to their responses related to collaboratively marking in which they exuberated an air of confidence; perhaps suggesting that not only do they find marking less challenging, but also believed that they were a valued member of staff. From these reflections, this study supports the recommendations from practitioner sources which suggest collaborative support systems are vital for beginning teachers in both developing and marking assessments (Gordon 2000; Turner 2007).

Conclusion

The aim of this investigation was to gain an insight into beginning secondary teachers' perceptions of assessment, as well as to identify the elements of assessment that beginning teachers find most challenging. In light of both of these objectives, the study additionally explored the extent to which professional support is addressing beginning teachers' needs in relation to assessment, and beginning teachers' evaluations of that support. Analysis of the interview data led to a number of pertinent research findings which addressed the aims of this study.

Beginning secondary teachers perceive the purpose of assessment as a means to improve student learning, by providing a form of feedback to teachers concerning students' understanding and progress. Greater teaching experience also translates to perceiving assessment as a tool to facilitate comparisons between students at both a classroom and state-wide level. It becomes apparent however that beginning secondary teachers do not adopt the perception of assessment as encompassing a 'pedagogical value'; that is using assessment data as a means to critique and evaluate beginning teachers' own practice. In addition to this, beginning secondary teachers place an emphasis on ongoing skill-based tests, as a method to informally assess student understanding and progress. Beginning secondary teachers also express a strong pedagogical belief that assessments have to be interesting and engaging in order to motivate students, as well as allowing students to demonstrate their understanding. Mathematics teachers in particular, desire a greater use of alternative/practical-based assessments, as opposed to traditional 'pen and paper' exams. The major constraint however which prevents beginning teachers from adopting these beliefs, is time.

The designing stage of assessment appears to be the most challenging element of assessment for beginning secondary teachers. Preservice programs most commonly address elements associated with designing assessments, however this is still considered the most challenging element once teaching. A teacher's tenure is also influential in determining what aspect of designing assessment proves most challenging. Teachers with one to two years of teaching

struggle with developing a task. This includes the wording of questions and ensuring it is both relevant and age-appropriate. The research findings suggest however that beginning secondary teachers with greater experience find the relationship between outcomes and assessment challenging. This includes designing assessments to effectively target syllabus outcomes and knowing upon completing assessments students have adequately met prescribed outcomes. Due to the challenges of classroom management, it has also become apparent that teachers with less than two years experience find assessment practice more difficult.

When investigating the level of professional support beginning teachers have been exposed to, it becomes apparent that there is a lack of formal professional development in assessment and reporting, such as seminars and off-site development days. As part of the Quality Teaching Framework initiative beginning teachers' from Mt Pat High have been exposed to professional development which addresses assessment. Although the *Quality Teaching assessment guide*'s objectives and relevance to assessment practice is understood, subject methods are influential in determining beginning teachers' perception of its usefulness and implementation. Teachers from the Humanities endorse the guide and believe it is beneficial in developing their skills in assessment and reporting. Mathematics teachers, understand its' relevance in attempting to create more meaningful and authentic assessments, however believe it is less relevant within their subject method. Despite the guide's potential usefulness, advice from experienced teachers is still the most common form of professional support for beginning secondary teachers. Advice is highly valued by beginning teachers as an ongoing and daily form of support, especially when designing assessments. Furthermore, collaborative marking with experienced colleagues is also pertinent to the development of beginning teachers' assessment practice.

Due to the limitations of this research study, further investigations would be warranted. In order to extend the findings of this research, factors such as the sampling of participants and the methodology adopted, would need to be addressed. For instance, a limitation of this study was that participants came from the same school. This factor may have influenced the participants' perception of assessment and its practice. From the aspect of professional

development, a school clearly has an impact on the level of professional support provided. Professional development agendas vary within schools as they are largely influenced by individual school co-ordinators and the availability of resources from external institutions. For example, Mt Pat High had introduced two seminars on the Quality Teaching Framework, however had not provided an extensive range of other forms of professional support for assessment and reporting. This limitation was reduced by placing an emphasis on the participants' evaluations of the professional support. It is still recommended however that for further research, participants are selected from a range of schools to obtain a better sample. Interviewing a greater number of participants would also verify whether the design stage, is the most challenging element of assessment.

By employing more than one research methodology, the research findings of this study could have been improved. Although interviews facilitated an in-depth analysis of beginning teachers' perceptions and experiences of assessment, no additional data was obtained to add to their responses. One method that is strongly recommended for further research is a content analysis on sample assessments. This would involve an analysis of both the types of assessments administered as well as the form of feedback provided to students. This would assist in determining whether beginning teachers' perceptions of assessments translate to their practical application. By relying solely on interviews it is difficult to determine whether participants actually apply the notions and beliefs of assessments that they orally report.

Despite these limitations, a number of recommendations can be made for beginning secondary teachers and assessment. In support of Herrington *et al* (2002), professional development needs to be focussed on developing skills to minimise practical constraints such as time. This form of development would not simply re-address theory-based content that was learnt in pre-service programs. But rather support beginning teachers in implementing a variety of methods to assess students that best align with their pedagogical beliefs and are viable within the classroom. Beginning Mathematics teachers would particularly benefit from professional development that assists in employing alternative/practical-based assessments that differ from traditional methods of assessment. Furthermore, the research findings from this study suggest that professional development should be targeted towards assisting

beginning teachers in designing assessments. This would include developing tasks that are relevant and effectively target syllabus outcomes.

Support from experienced teachers is highly valuable to the development of beginning teachers' skills in assessment. It is recommended that in conjunction with advice in relation to designing tasks and engaging in collaborative marking, experienced teachers should also assist beginning teachers in utilising the 'pedagogical value' of assessment: using assessment data as a means not only to evaluate students' understanding and progress but simultaneously evaluate beginning teachers' own strengths and weaknesses. By undertaking a process of evaluation from both perspectives, teachers will be equipped with the necessary skills to design and implement assessments, which best achieve learning outcomes.

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