Assessment for Learning while Learning to Assess: Assessment in Initial Teacher Education Through the Eyes of Pre-Service Teachers and Teacher Educators

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Abstract: Competing demands on assessment pose an ongoing challenge for Higher Education. In Initial Teacher Education (ITE) these demands are problematised further in meeting the roles of assessment for measurement, accountability, learning and curriculum. ITE holds a dual role of teaching through content and practice, whereby Pre-Service Teachers (PST) are assessed for learning while learning to assess, thus positioning assessment as curriculum. This exploratory study sought insight into PST and Teacher Educator's (TE) perceptions of assessment within a postgraduate ITE program. TEs and PSTs alike recognised and valued the assessment processes in focusing attention on learning while developing understanding of assessment for their own practice. They also highlighted PST stress related to the imposition of assessment processes for measurement which, for some, derailed the goals of learning focused assessment and understanding of assessment for practice. The project offers understanding to the potential and restraints for learning focussed assessment in ITE.

Assessment in Initial Teacher Education: Competing Demands

Assessment in Higher Education serves multiple, competing responsibilities: measurement, accountability and learning (Bloxham, 2008; Fletcher, Meyer, Anderson, Johnston & Rees, 2012; Hamodi, Lopez-Pastor & Lopez-Pastor, 2017; Ramsden, 2003; Wall, Hursh & Rogers, 2014). The most important role assessment may play is in improving student learning (Carless, 2009), with assessment being arguably the most influential variable on learning (Boud, Cohen & Sampson, 1999; Gijbels, Segers & Stryf, 2008; McLean, 2018). Research continues to espouse Elton and Laurillard's (1979) original claim that "(T)he quickest way to change student learning is to change the assessment system" (p. 100), while evidence suggests this may not always be the case given variability in teaching contexts (Joughin, 2010). Assessment has been shown to play a central role in improving learning (Black & Wiliam, 1998), though is insufficient alone (Joughin, 2010) and holds the potential to undermine learning when there is disconnection between pedagogy and learning (Boud, 1995).

Many approaches have been utilised in assessment to focus on the goal of improved learning; these include criterion referenced assessment (CRA), formative assessment and 'Assessment for Learning' (AfL) – the latter two often being used synonymously. This research study acknowledges that learning focused assessment occurs in many varied guises

and is not limited to those recognised as AfL, thus it utilises the term 'learning focused assessment' to encompass these approaches.

Amidst attention on learning focused assessment has been the rise of accountability driven reforms. This has renewed emphasis on assessment for measurement giving rise to standardisation. Consequentially, the role of assessment for improved student learning has been challenged resulting in further development of assessment processes to prioritise student learning (Brooker & Smith, 1996; Ajjawi & Boud, 2015) positioning assessment as a pedagogical act.

Assessment serves an additional demand in Initial Teacher Education (ITE), as curriculum. Pre-Service Teachers (PSTs) learn through assessment how to utilise assessment processes in their own practice. This purpose of assessment may be derailed when learning is not the main focus of assessment. The challenges for assessment in ITE are thus problematised further in the need to meet the role of assessment for learning, accountability, measurement, as pedagogy and as curriculum.

This research study set out to explore the perceptions of Teacher Educators (TEs) and PSTs on the assessment processes utilised in a postgraduate ITE program. The following review of literature considers the developments and impacts within assessment practice that have shaped the processes utilised in the specific ITE program. An overview of this program is then provided, drawing awareness to the tensions present due to conflicting demands that necessitate exploration of TE and PST perceptions regarding assessment practice.

Focusing Assessment on Learning
Criterion Referenced Assessment (CRA)

CRA led the charge in higher education as a model for assessment to support learning (Boud, 2000; Carless, 2007). Developed in the early 1960s (Glaser & Kraus, 1962), CRA set out to focus assessment on a student's attainment of learning goals. Often positioned as counterpoint to Norm Referenced Assessment, CRA assesses students on their work without comparison to other students, and often without comparison to the student's previous work. Explicit criteria seek to clarify from the outset what will be assessed in order to support students to target their learning and also support teacher judgement of student work (Sadler, 2005). This necessitates 'constructive alignment' whereby outcomes, teaching and learning activities, assessment tasks and criteria are in alignment so as to support improved learning (Biggs, 1996; Biggs, 1999; Trigwell & Prosser, 2014).

Support for learning is enabled both directly and indirectly in the use of CRA. Issues of hidden curriculum (Snyder, 1971) in assessment practice have been addressed through CRA's provision of explicit criteria from the outset of teaching and learning (Joughin, 2010). This clarity assists teaching and learning activities to be planned to target the learning goal and empowers students to direct their learning. CRA holds the potential to support collaboration and focus attention on learning rather than on grades (Boud & Associates, 2010), particularly when grades are removed (Sadler, 1989; Rust, 2002).

CRA is not unproblematic (Sadler, 1998; Kyndt, Dochy, Struyven & Casscallar, 2011). Shared understanding of criteria is fundamental to CRA (Carlson, MacDonald, Gorely, Hanrahan, & Burgess-Limerick, 2000) and central to its limitations. CRA has not removed the gap that may arise between what is formally stated and what is actually understood in an assessment task by students and teachers (Rust, Price & O'Donovan, 2003; Joughin, 2010). CRA is also open to teachers using unpublished criteria in their assessment of student work (Bloxham, den-Outer, Hudson & Price, 2016).

Formative Assessment and Assessment for Learning (AfL)

Explicit criteria alone will not improve learning (O'Donovan, Price & Rust, (2008). As a result, many processes have been developed to support assessment for improved student learning. Formative assessment and Assessment for Learning (AfL) have led this expansion. The terms formative and summative were first used by Scriven (1967) in relation to program evaluation and later developed by Bloom (1969) to evaluate student achievement. Crucially, formative relates to processes during learning, while summative refers to a concluding evaluation. It was not until the work of Black and Wiliam (1998), and their colleagues at the Assessment Reform Group, that these terms became widespread within assessment practice across educational environments. Formative assessment has become synonymous with AfL due to the shared goals to inform teaching for learning, as well as learners themselves.

Black and Wiliam's (1998) review of research demonstrated high gains in student learning when teachers used formative assessment. This included a wide range of approaches that led to changes in teaching to improve student learning, as well as changes in student learning itself. "(B)uilt on the underlying pedagogic principle that foregrounds the promotion of pupil autonomy" (Marshall & Drummond, 2006, p.133), the original intentions of formative assessment focused on feedback, questioning, shared criteria and self assessment. These processes were not intended to be used in isolation, recognising the pedagogic shifts required that also change the role of the teacher and student to enable learners to move to autonomy. Marshall and Drummond (2006) suggested the need to address the 'spirit' of AfL over the 'letter' recognising the need to expand assessment as pedagogy to "the way teachers conceptualise and sequence the tasks undertaken by pupils in the lesson" (p. 147).

Following the 'letter' of AfL has created many challenges causing questions as to the reality of Black and Wiliam's (1998) claims for impact on student learning (Bennett, 2011). Misunderstandings have spread through inappropriate professional learning positioning formative assessment as 'strategy' (Hargreaves, 2013) and thus acting counter to the 'spirit' enabling AfL to be seen as a specific set of tasks (James & Pedder, 2012; Asp, 2018). When viewed in this way formative assessment practices are used without reaching its deeper principles (Stobart, 2006). This may prevent assessment impacting on teaching and thus learning, diverting away from the overall goal of learner autonomy. Instead these practices may be used for assessment as measurement and accountability. Feedback is one practice where these limitations have been actualised. Strongly advocated for across all levels of education, feedback has not always been found to be useful for learning by higher education students (McSweeney, 2014), which may reflect the use of feedback as strategy rather than located within pedagogic approaches to support learner autonomy.

Misunderstandings of formative assessment have also fuelled a binary with Summative assessment. This misses the importance of process over task, obscuring the view from summative tasks having formative potential (Bennett, 2011). Carless' (2009) model of Learning Oriented Assessment (LOA) has stepped away from this binary to re-direct attention to the goal of learning. LOA highlights the spirit of AfL drawing on all opportunities for information to be gathered to inform further teaching for improved learning. Central to LOA is assessment as learning. LOA makes steps to focus on learning within a space dominated by assessment for measurement and accountability.

The abovementioned conflicting demands remain however and may challenge learning focused assessment approaches, especially in Higher Education where students have long experience with traditional approaches to assessment. This may lead students to favour the standardised approaches over the unfamiliar. Seeking comfort in the known may result in reluctance to engage in assessment embedded in teaching and learning given experience with assessment focused on impact after teaching rather than during (Wiliam, 2011).

Accountability: Standardisation over Learning

Concurrent to the development in learning focused assessment has been the escalation in accountability and resulting standardisation that is now pervasive across education systems. Changes in ITE have been reflected in assessment practice (Singh, 2012), with emphasis on standardisation for measurement and accountability (Mayer, 2014) such as the Teacher Performance Assessment (TPA) which seeks to move the final assessment of PSTs beyond ITE to external authority (Adie and Wyatt-Smith, 2019). This has invoked greater attention to tightening measures such as more explicit criteria, rubrics, and exemplar tasks used for accountability rather than to develop shared understanding for learning.

The use of exemplar tasks has been found to build tacit knowledge of the assessment task and criteria, though when used in isolation have been taken up by students as "templates, or to copy" (Bell, Mladenovic & Price, 2013, p. 772). The use of explicit criteria themselves, as well as rubrics have been shown to raise anxiety and focus attention on trivial issues (Norton, 2004). Focus on accountability may therefore result in assessment for learning losing "out to assessment of learning (Hildebrand, 2004; Bloxham, 2008)" (Singh, 2012, p. 121).

Assessment as Curriculum

Assessment literacy is crucial for all teachers and required within ITE (eg. BOSTES, 2016). Limited Early Career Teacher (ECT) understanding of assessment has been linked to low levels of ITE on assessment (DeLuca, Klinger, Searle and Shulha, 2010; Popham, 2011). PSTs' 'Apprenticeships of Observation' build years of experience and beliefs regarding assessment "predicated on negative experiences of assessment that operate from traditional assumptions of measurement and that largely emphasised summative assessment approaches" (DeLuca, Chamez, Bellara & Cao, 2013, p. 129). ITE has the greatest impact on changing PST established beliefs (Loughran, 2006), and therefore holds a pivotal role in developing PST assessment literacy.

Experiential learning of assessment in context has been demonstrated to enable AfL in teachers' professional learning (James & Pedder, 2012). ITE holds a dual role in the development of PST understanding and practice (Lunenberg, Korthagen & Swennen, 2007) whereby PSTs learn through the content and the pedagogical approaches that model teaching, learning and assessment. In this dual role, all assessment practice becomes curriculum whereby PSTs develop their knowledge for future practice through their engagement in the assessment processes. Learning focused assessment is essential to support learning and act as curriculum from which PSTs may develop knowledge of contemporary assessment processes as well as build positive experiences with these approaches to support integration in their own teaching principles and practice (James & Pedder, 2006; DeLuca et al., 2013).

Learning focused approaches to assessment may also push back against the assessment for accountability agenda by shifting the focus away from assessment for measurement and accountability by supporting stronger learning and achievement (DeLuca & Volante, 2016). The next section considers processes that may support building of tacit knowledge to enable PSTs to experience assessment differently to support learning, shift their beliefs and positively impact practice.

Moving from Accountability to Learning Focused Assessment

Amidst the sea of approaches to assessment are specific processes aimed to address the problems in existing models, focus on learning and challenge the broadening force of accountability. Taking a social constructivist view recognises that meaning cannot be imposed rather it must be individually constructed (Watty et al., 2014). Within this framework assessment processes are used in combination so as to develop trust and avoid the creep of accountability (Carless, 2009). Such 'community processes' (Bloxham et al., 2016; Rust, O'Donovan & Price, 2005; Watty et al., 2014) focus on developing tacit knowledge through social interaction, and draw assessment back into pedagogy. The Social Constructivist Assessment Processes (SCAP) model (Rust, O'Donovan & Price, 2005) is founded upon the principle that: "(A)cquiring knowledge and understanding of assessment processes, criteria and standards needs the same kind of active engagement and participation as learning about anything else" (p. 232). SCAP advocates for the interaction of processes including: engagement with criteria; creating criteria; and engaging with feedback (Rust, O'Donovan & Price, 2005), which also facilitates the dual role of ITE (Lunenberg, Korthagen & Swennen, 2007).

Engagement with criteria involves discussion and practice amongst both teachers and students. This may occur through staff discussion and teacher-led discussion with students, although it requires practical use of the criteria through student assessment of sample tasks, peer feedback on draft tasks and/or self-assessment of draft tasks (Rust, O'Donovan & Price, 2005). While CRA generally requires student work to be assessed without reference to other students' work or to the student's previous performance (Sadler, 2005), staff discussion may involve moderation which has been shown to be essential in developing TEs' understanding of assessment tasks and processes, enabling consistency of marking and supporting student understanding of assessment (Watty et al., 2014). The SCAP model also advocates for staff discussion of criteria prior to teaching to support shared understanding from the outset (Rust, O'Donovan & Price, 2005). A SCAP model process of 'creating criteria' draws staff and students into the process. Engagement with feedback may involve students assessing their own work against generic feedback, responding to individual feedback in relation to what they need to do in their learning, and/or re-drafting tasks following feedback, including from peers (Rust, O'Donovan & Price, 2005). Embedding assessment processes across the teaching and learning activities, in this way, supports learning focused assessment and improves trust in this pedagogical relationship which may counter the pressures of accountability (Carless, 2009).

Pre-Service Teacher and Teacher Educator Perceptions of Assessment

Given the problematised position of assessment in ITE, understanding of PST and TE perceptions of assessment processes is crucial to ongoing development. Student perceptions on assessment processes are needed to explore the links between intentions for learning and student engagement with these processes (Gijbels & Dochy, 2006). Higher Education teacher understanding of assessment has received little attention and is crucial to enhancing practice (Sadler & Reimann, 2018). Both perspectives are needed to expand understanding and development of practice (Maclellan, 2004). This initial exploratory project sought a broad perspective on PST and TE perceptions of assessment practice in a specific ITE program founded on clear principles of learning focused assessment through CRA, absence of grading and authentic tasks embedded in the teaching and learning.

The ITE Program

This project focused on the Masters of Teaching (MTeach), a postgraduate ITE degree completed over two years, at a large Australian university. Initiated in response to the rapidly changing field of teacher education, the MTeach was founded upon inquiry. Acknowledged as a Social Constructivist program (Beck & Kosnick, 2006) the degree engages PSTs in inquiry through collaboration and independent learning endeavouring to position ITE as a stepping stone in career long learning. The MTeach has sought to develop reflective teachers to lead change within the education system (Ewing & Smith, 2001). In meeting this aim, the MTeach foundation units seek to challenge existing beliefs and develop skills of critical and analytical thinking, within a collaborative learning community to open PSTs to new ways of looking at learning, teaching, students and schools.

The MTeach is composed of three strands: foundation units, Key Learning Area (KLA) units and in-school Professional Experience (PEx). The foundation units were the focus of this project as all except the Early Childhood cohort complete these units, resulting in enrolments of around 200 PSTs each year, across the Primary, Secondary, Health and Physical Education, and School Counselling cohorts. This involved two units from a core suite of four which lead the MTeach long inquiry into teachers, learners, and schools incorporating pedagogy, philosophy, sociology and psychology; the first of two Special and Inclusive Education units; and a standalone unit exploring Indigenous perspectives.

Assessment in the MTeach Program

Innovative, learning focused assessment has been a cornerstone of the MTeach since inception. Central to the degree has been CRA, the absence of grading and authentic tasks – with formative assessment practices embedded throughout. A range of processes are enacted across the foundation units, with varying similarity to the SCAP model (Rust, O'Donovan & Price, 2005) and LOA (Carless, 2015) supporting shared understanding of criteria and student learning. All units utilise explicit criteria aligned to the unit outcomes, which are supported through rubrics. Self-assessment, peer assessment and the use of sample tasks, along with other formative processes are drawn upon in differing ways across the units. Feedforward is utilised through prior exposure to assessment clarifying expectations (Baker & Zuvela, 2013), and some units include optional Q&A sessions for PSTs to clarify understanding and dispel issues of assumed inconsistency across seminars, which deepen the feedforward for tacit knowledge of assessment tasks. All tasks are moderated through staff groups assessing tasks together to clarify where criteria have, and have not, been met. Some MTeach foundation units utilise feedforward for "students (to) recognize the goal of feedback and interpret and apply the suggestions in order to close the gap between the current level of performance and the expected learning objective" (Koen et al., 2012, p. 240). This occurs through PST response to feedback on one task with consideration to how they will apply the feedback to the next task. The follow-on task then has a criterion requiring evidence that the feedback has been applied. In these instances, it is necessary to assess with reference to a PST's previous work.

Ungraded assessment is used in the MTeach through the absence of numerical results. Tasks are summatively assessed as either 'Meets Criteria' (MC) or 'Does Not Meet Criteria' (DNMC). While not a requirement of CRA, Sadler, (1989) asserted the essentiality of ungraded assessment for feedback to be useful for learning. In addition, the absence of grading aims to support greater collaboration through the removal of competition to achieve high grades; to focus on learning rather than achievement; and enable higher levels of

knowledge, skill, and understanding by progressively increasing the demand of required criteria across the program (Rust, 2002; Tannock, 2015; White & Fantone, 2010). The suite of four core units that runs across the MTeach utilises the Structure of Observed Learning Outcome (SOLO) Taxonomy (Biggs & Collis, 1982) to scaffold progression across the degree. In that instance criteria for each task are set at a specific level of the SOLO Taxonomy to distinguish the complexity of learning at that point.

Authentic assessment, realised as opportunities "to stimulate students to develop skills or competencies relevant for their future world of work" (Gulikers, Bastiaens & Kirschner, 2006, p. 338), enables the dual role of teacher education (Lunenberg, Korthagen & Swennen, 2007) in explicitly and implicitly teaching about the profession. Each of the foundation units seeks to utilise authentic assessment.

Our Approach

Since the inception of the MTeach ITE has faced many changes including accreditation and standardisation, growth in alternative pathways, financial cuts and pressure to attract enrolments (Mayer, 2014). As a result, the MTeach has also changed, impacting on the articulation and perception of fundamental approaches. Teacher interpretation and implementation of learning focused assessment practice is fundamental to its success (Sadler, 2010; Marshall & Drummond, 2006), requiring staff to be closely aligned in their principles and practice (Ramsden, 2003; O'Donovan, Rust & Price, 2016). In addition, student perception of assessment tasks may act as a 'mediating function' (Joughin, 2010, p. 341) in its success, yet often varies considerably from that of teaching staff (McSweeney, 2014). In critiquing the theory of assessment as a key determinant of learning Joughin (2010) asserted the need for "new research to determine the extent to which, and in what ways, students' experience of assessment influences their patterns of and approaches to study" (p. 336), while Sadler and Reimann (2018) have highlighted the limited research into the role of teacher assessment understanding.

This project took the form of an exploratory case study (Yin, 2014) guided by key theory on the role of assessment in supporting learning (Carless, 2015; Marshall & Drummond, 2006; Rust, O'Donovan & Price, 2005). Inquiry focused on TE and PST perceptions of assessment practice within the foundation units, to gain insight into interpretation of assessment processes to guide ongoing research and development of assessment.

Data were collected through a series of focus group interviews (Krueger & Casey, 2014). TEs were drawn together in groups according to the unit in which they taught, forming three groups with three to five participants in each, totalling 11 TEs, all of whom were casual staff members. PSTs were drawn together according to whether they were in the first or second year of the degree and the time they were available. This resulted in four focus groups ranging in size from two to four participants, with a total of nine PSTs in all, five from the primary cohort and four from the secondary cohort across two curriculum areas[1]. Four PSTs were in their first year and five in their second year of the program (see Table 1). Each focus group ran for one hour.

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[1] No School Counselling or Health and Physical Education PSTs volunteered for this project.

Participant	Year Level in the MTeach
PST 1	1st year
PST 2	1st year
PST 3	1st year
PST 4	1st year
PST 5	2nd year
PST 6	2nd year
PST 7	2nd year
PST 8	2nd year
PST 9	2nd Year

Table 1: MTeach Year Level of the PST Participants

The small sample provided deep insight to the experience of these individuals, essential for an exploratory case study to guide further research. While not generalisable to the whole cohort of the MTeach or to all ITE, the data showed understanding of perspectives across the TEs and PSTs suggesting they are more prevalent than just this sample. A small sample such as this has the potential to raise new knowledge that may contribute to existing theory, as supported by the 'Black Swan' theory (Flyvbjerg, 2004) with only one new piece of information necessary to dispute existing knowledge or theory.

Learning focused assessment is integral to the pedagogy of these foundation units with processes embedded throughout teaching. As such the interviews explored assessment within the context of pedagogy encompassing unit aims, teaching activities, and communication, as well as explicit assessment tasks. This broad sweep of data provided crucial insight into PST beliefs, experience, expectations and learning approaches, as well as TE beliefs and expectations that surround the development of assessment processes. The findings therefore extend beyond a narrow view of assessment to assessment as pedagogy.

Following ethical approval all focus group interviews were audio recorded and transcribed in preparation for data analysis. Data was analysed by one researcher using NVIVO and by another researcher using manual thematic analysis (Braun & Clarke, 2006). The themes were then compared and discussed to explore the convergence that formed themes, and also the dissonant voices (Crotty, 1998) including areas of agreement and disagreement in the two approaches to data analysis. Themes and points of dissonance were then compared across the PST and TE groups to identify where perspectives aligned and where they diverged.

Looking Back on Assessment: Teacher Educator and Pre-Service Teacher Perspectives

Conversations in the focus groups showed agreement and divergence amongst the PSTs and between the PST and TE perceptions, in relation to PST understanding of the assessment principles and processes, their interpretation of tasks and engagement with assessment for learning. These conversations highlighted some of the areas which create challenge in learning and showed that this is positive for most in supporting their learning. For some this challenge is significant and may prevent engagement with the goal of learning focused assessment, in turn preventing development of knowledge and practice to implement learning focused assessment in their teaching. Four key themes were identified, each showing how practice is supporting many PSTs in their learning – in unit content and assessment as curriculum; as well as the flipside for some PSTs who struggle to engage with the learning opportunities enabled through assessment, avoiding assessment as curriculum.

The first theme is that TEs and PSTs recognise the aim to engage PSTs as learners, reflecting the need for teachers to be learners. This is challenged by the expectations some PSTs hold on entry to the MTeach to seek a 'license to teach'. Second, the crucial position of

TE as role model for the content being learned, including assessment acting as curriculum, is not lost on TEs or PSTs. Third, is the awareness of the 'disruptive' nature of the foundation units which challenge previous experience and existing beliefs, particularly in relation to assessment. This is too difficult for some PSTs who are already challenged significantly by the stark contrast in content to their previous experience and expectations of ITE, potentially making assessment the final straw that leads to disengagement. Finally, the ungraded nature of assessment in the MTeach was shown to be achieving the goals to reduce stress and support collaboration, although in practice it was shown to be generally interpreted as pass/fail. For some PSTs this view positioned ungraded assessment as 'high stakes', especially given the dramatic consequences of failing a unit due to other program constraints, which results in significant stress. The assessment practices used across these units aim to support PST learning, though for some PSTs the processes support, perhaps even encourage, a focus away from learning to 'just getting through it'. These themes are discussed next, followed by exploration of the divergence in PST experience that has been observed.

Becoming a Teacher by Being a Learner / License to Teach

TEs and PSTs appreciated that the assessment tasks support the need for teachers to be learners; as one PST stated, the aim is "*to teach us to learn so - so teaching is basically learning*" (PST 3). This is supported by the focus on process over product – "*It's much more a process*" (TE 1). TEs reflected a view of this process consistent to the aims of the program and authentic to the profession of teaching:

> *all of that comes together into an attitude that they have as a teacher, which includes being able to be flexible, reflective, always inquiring, always learning, and not having, not wanting the little lists and putting everything in categories and having that - you know, like a mastery of techniques. It's all about opening themselves to new possibilities and looking at things.* (TE 5)

TEs observed that "*it's hard – we are trying to do something that is very hard*" (TE 1); though one PST expected the program to be hard and saw the need given the level of learning being embarked upon:

> *I expected – I think some of the assessment was difficult, potentially difficult, for me to understand the approach taken, but I have to be honest in saying that I expected it for – for – I expected it to be difficult for me to understand because my previous experience as an undergraduate… I'm now going to a Masters [so] it needed to be that extra level. I didn't have the framework of education which our lecturers do because this is their bread and butter so I'm trying to go into their world. So the struggle there for me was I think legitimate.* (PST 5)

PSTs also drew attention to the relationship between the processes of learning and assessment to the practice of teaching: *having multiple essays and multiple readings and multiple things happening really quickly in short timeframes was very - a big struggle but teaching, it's a good model for teaching* (PST 4).

The role of assessment as curriculum was valued by the PSTs:

> *the tasks, as a whole, were things that I see teachers doing out there in schools. Obviously they're not – not writing essays about educational theory but that's – you know, that's a stage they've already passed. So – so, yeah, so just from a sort of that really kind of raw point of view I wanted to get this paper so that I could qualify as a teacher because this is what I want to do. And did the tasks align with it? Yes. I felt they were consistent with – with what I saw in schools* (PST 5).

There was also recognition that at times they were working in ways that the teachers observed during in school PEx were not yet embarking upon: *"You don't see it – at least in the experiences I've had at schools. It doesn't happen all that often"* (PST 7).

The positioning of teachers as learners and thus the PSTs as learners is not without difficulty. TEs drew attention to some PSTs who have *"trouble thinking of themselves as learners. …They wanted to talk about themselves as future teachers or something, they didn't want to talk about themselves as learners, they found that quite difficult"* (TE 3). One PST acknowledged ill-placed expectations on entering the course:

> *coming into this course I saw it as a means for me to get qualified to – so that I could teach in schools then I could be accredited to teach in schools. That I had this piece of paper, so to speak* (PST 5);

which may conflict with the engagement of PSTs as learners. Another saw that they had engaged with the learning though at times was able to put that aside and just 'tick the boxes' to get to the end goal:

> *it's kind of ticking boxes as well. So- so for me it's been the actual learning and the reflection but it's also been an element of maybe 20% or 30% of well this is the box, you just have to tick to kind of go… go through this next week and then you move … forwards.* (PST 4)

In doing so this PST was able to circumvent the learning focused assessment and in turn assessment as curriculum.

Dual Role of Teacher Education / The Instrumental Problematic

Central to these units is Loughran's (2013) framing of teaching as 'problematic' requiring ongoing decision making based on multiple sources of information. Teaching, learning and the embedded assessment tasks are designed to engage PSTs in critical inquiry to develop skills of higher order thinking, decision making, collaboration and communication aimed at supporting PSTs to gather information and make appropriate plans of action relevant to multiple factors. This pedagogical approach was observed by PSTs through what was assessed:

> *…our higher order thinking skills and then to a degree a level of creativity as well in how we were able to … take all this other higher order thinking [on] deep concepts and how to break it down and make meaning of it. (PST 6)*

TEs and PSTs recognised what is taught and assessed in the foundation units – communication, collaboration, critical thinking, reflection, critical interpretation of multiple sources – and the relevance to their careers as teachers:

> *"It is about assessing their level of understanding, but it's about also getting them involved in a process where they develop those skills that will be really important for them in their everyday teaching practice"* (TE 7); *"It models how you'd be as a teacher"* (PST 4); *"(we learnt) how to implement inquiry learning in a classroom because we did it here"* (PST 8).

A crucial aspect of the inquiry approach is the need for PSTs to actively engage with their learning including drawing components together from within units, as well as between units: *"leave it to them to make the links rather than us, because (if) we make the links and that's all they think of …I don't think you have to hold their hand that much"* (TE 4). For some PSTs this felt like abandonment of them or abdication of teaching responsibility, highlighting a clash in their perceptions of teaching and learning:

> *"It really was up for each individual student to kind of pool together which units kind of were valid or less valid by the time you graduate"* (PST 7) and

potentially a misunderstanding of this approach as a smorgasbord of confusing choices rather than a jigsaw: *"it's up to us to take away what we want"* (PST 6).

The inquiry pedagogy conflicts with the experience and expectations of not just the PSTs in the MTeach but with broader societal expectations of teaching and teacher education (Loughran and Hamilton, 2016). TEs identified an instrumentalist view of teaching and learning amongst PSTs, with an expectation of ITE to provide a 'toolbag' for teaching:

> *some of them come along into the subject thinking we're going to go through "if the student has a disability, x - this is what you do ... Disability z - do this instead of this", "Give it to me in my hot little hand, and I'm happy, all right?" But ...I think it throws them a little bit when they don't get the 'how to' book* (TE 6) *they were still wanting to be told.* (TE 1)

One PST articulated this perspective in accepting learning about inquiry based learning with school students though did not appreciate being placed in the position of inquiry learning themselves: *"we did inquiry-based ... I would've preferred a bit more structure round us...we were modelling inquiry (for students)... I would've liked a bit more transmissive information, a bit more structure for us"* (PST 4).

The discomfort of unfamiliar pedagogy may further impact on the negative perceptions related to unfamiliar assessment tasks. This may trigger perceived higher workloads and misunderstanding of learning focused assessment. In turn, this may increase stress and prompt surface approaches to learning, preventing uptake of such pedagogical approaches within their own future classrooms (Hattie & Donoghue, 2016; Tang & Chow, 2007).

Disrupting to Inquire / Sitting with Suspense

TEs and PSTs were very clear on the disruptive role the foundation units play in the PSTs' learning with a clear goal being: *"reshaping your attitude or pre-existing ideas"* (PST 3) and

> *unlearning what they bring because they come (at the) beginning of the degree with a very strong notion of what teaching is ... they never unlearn it, but to force them into some questioning about things that they just don't realise they're holding about assessment.* (TE 1)

This may lead to re-examination of existing beliefs and an opening to new ways of seeing:

> *it dug up a lot of things and it made me question where along the line did this happen and this happen, and how did my learning - how did it get to where it is now? ... I don't know if I would have questioned all of that and I think that's important going into teaching ... particularly because a lot of that past stuff will inevitably come up and you might just jump back to that, you know, very easily...I learnt a lot ...about myself I think, my past learning.* (PST 1)

Disrupting existing beliefs and knowledge in order to open thinking to new possibilities slows the learning process down in order to consider multiple perspectives. For some this has encouraged a critical component of reflection, 'open mindedness' (Dewey, 1933): *"I've also learnt ...to stay open and not...close my mind off to things"* (PST 1). For others this may be an impossibly uncomfortable position, especially when experience and beliefs related to assessment are involved. Dewey (1933) asserted that reflection requires

'sitting with suspense', recognising that when we reflect and acknowledge practice as ineffective, we cannot launch straight into an alternative. Rather, we must be comfortable with not knowing the solution in order to be open to many possibilities and select the best for the context.

Sitting with suspense is crucial when beliefs are disrupted and it can be very unsettling:

"*some of them (PSTs) don't ever get to that understanding …some of them are quite conflicted or hostile and feel they haven't been given or told enough or learned enough, because they're sitting in that uncomfortable position*" (TE 1).

This can result in significant stress which overwhelms engagement with assessment tasks, something TEs in this study found surprising: "*they are very tentative, unsure, worried …. (it) surprised me…these tasks are not that onerous*" (TE 6).

Comfort was seen as coming from grasping something seemingly tangible, something that gives direction, such as: "*they love learning about the (behaviour) theories because it's like…because it's something to hold onto*" (TE 3). This suggests a desire to be 'given the answers' which was raised by PSTs:

you're meant to figure it out on your own but there's a lot of pressures. It's almost it'd be good if the seminar leaders sort of spoon fed "this is really important, read this, read this, read this, read this (PST 4)

and thus a conflicting view to learning focused assessment which seeks to develop learner autonomy. Reluctance to engage with autonomy also prevents PSTs from engaging with the assessment processes as curriculum.

TEs raised the newness of the content that is practiced and thus modelled in assessment processes "*They have no knowledge of assessment, as a teaching perspective, and how critical it is*" (TE 9).

The inquiry nature of the units means that PSTs are often engaged in processes for which they are building understanding. As discussed earlier, the SCAP approach to assessment practice emphasises the need for developing knowledge and understanding about assessment as we would with any other learning (Rust, O'Connor & Price, 2005). Knowledge and understanding of assessment for PSTs is both a matter of assessment related to their own learning and learning to assess as a teacher, and is entwined through the modelling as crucial pedagogic practice. This cannot be fulfilled at the beginning of a program meaning that knowledge and understanding of assessment practice will be incomplete in the early stages of the program and may contribute to assessment stress through the suspense of not knowing everything about what they are doing. Difference was observed in the way the second year PSTs talked about assessment compared to the first year PSTs:

…many of the assessments we've done were very, very helpful for us to actually see the theory in order to use that theory when you go into a classroom, so make that theory practice, which I think is amazing, specifically for me because I come from a very different scholastic system, so it opened my eyes….So for the first few months I was just so like overwhelmed and it was a little bit a subjective … and now I actually think that they are aligned very much (PST 8)

suggesting that the PSTs do develop knowledge and comfort in the processes as they progress.

Assessment for Learning / Assessment Stress

Ungraded assessment has been fundamental to the MTeach seeking to focus on learning rather than achievement, reducing stress and increasing collaboration (Rust, 2002; White & Fantone, 2010). All TEs and PSTs appreciated the value of ungraded assessment in its potential to achieve these aims: "*this is actually about me becoming a teacher not me getting good marks …when there's too much emphasis on performance in assessment I get side-tracked a bit about doing well as opposed to what is it … trying to teach… teach me*" (PST 4). PSTs also recognised that the assessment processes, including being ungraded, mirror the significant focus of assessment for them as classroom teachers: "*It's what we teach, you know, to the students as well*" (PST 8).

The possibility that ungraded assessment may achieve the opposite of the intended aims, intensifying focus on 'passing' (Hattie & Donoghue, 2016) was raised by TEs and PSTs. All participants equated ungraded assessment as 'Pass/Fail' even when they understood the theoretical difference:

> *from a theoretical point of view I understand the distinction between meets criteria and, you know, doesn't meet criteria. And that distinction between that and pass and fail, but I guess to some extent it's the same because if you don't meet criteria then you might not pass this course, therefore, you have failed this course….so kind of the end game seems the same* (PST 5).

The reality is that in an ungraded program the only possible outcomes are to pass or fail: "*I love pass/fail. I think it's great. I think you either - you either pass it or you fail it and that's it. There's no HDs (high distinctions[2]), there's no competition between anyone and I think that's great*" (PST 3). TEs saw that some PSTs "*felt it was quite high stakes*" (TE 3) being 'pass/fail', particularly given the ramifications of failing based on program requirements that may result in a PST sitting out for a year. It is unsurprising then to find that some PSTs find the ungraded assessment stressful and focus their attention on 'passing' over learning, such as the previous mention of 'ticking boxes'.

Variation in what constitutes 'Meets Criteria' (MC) between units also saw some TEs and PSTs regarding this as equivalent to a 'pass' in a graded course, therefore 50%: "*sometimes it was easier to pass than it should have been…. the level of expectation was lower in some, higher in others*" (PST 5). This is potentially confusing and disruptive to a learning focus, as highlighted by one TE: "*I wonder whether that's a reflection on the pass/fail aspect of the course … sometimes I think they're very lazy, right? They do the minimum*" (TE 4). Tensions between the conflicting demands upon assessment in ITE lead to confusion on the purpose of assessment (McLean, 2018), preventing the aim for assessment to support learning, and negating the role of assessment as curriculum.

Disrupting Entrenched Beliefs, Shifting Ingrained Approaches: "it's hard – we are trying to do something that is very hard[3]"

In conclusion, this section looks back on the discussion of the study's themes. The discussion highlighted the unfamiliarity of assessment practices within ITE that may contribute to PST stress and potentially to disengagement from learning, while also recognising the authenticity of these processes both for teachers and learners. The assessment processes utilised within these units were shown to be unfamiliar to both TEs and PSTs. This is unsurprising

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[2] 'High Distinction' is the highest category of grades incorporating 85%-100%.
[3] Teacher Educator 1

given processes that embed learning focused assessment remain infrequent within Higher Education (McLean, 2018) and problematic within ITE (Hamodi, et al., 2017).

For TEs there was recognition that the units engaged in assessment processes that varied from other ITE units in which they had taught: "*Assessment's been quite different in this unit compared to a lot of others…. it's been much more embedded into the unit than it has been in other units that I've taught* (TE 3); *"We're trying to model…formative assessment…so that's why you have the arguments and the feelings that it's never not… (it's) non-stop and there's too many pieces to it"* (TE 2). They also saw a contrast between the previous learning experiences of PSTs and those involved in the MTeach: "*I think what we were talking about before in terms of trying to push them to be more critical in their thinking, to be reflective in their … pushes them outside a conventional boundary of thinking"* (TE 6). This was also acknowledged by PSTs with regard to the skills they were developing through the assessment tasks: "*definitely with critical thinking. And I think the ability to analyse readings … my undergrad I definitely did not do that and so this was definitely a big leap and I feel like I definitely was assessed on that"* (PST 6).

PST perception and experience of assessment processes and tasks is influenced by previous learning experience, beliefs on learning and the resulting expectations that they hold for ITE and the profession of teaching. Today's PSTs enter ITE with experience of teaching and learning that may differ considerably to the fast-paced change of schooling that ITE is geared towards. Likewise, the dominant expectation of ITE in society is of 'training' to be `'classroom ready' (TEMAG, 2014). Training has been viewed as a trivialised perspective that avoids the complexity and challenges of the 'educative experience' involved in learning to teach (Loughran & Hamilton, 2016, p. 4). The MTeach ITE may therefore pose a potential clash with unfamiliar experience of teaching and learning, challenge to long held beliefs and shock to the expectations of many PSTs. This clash is experienced with the pedagogy, content and assessment. In this context, it might be that assessment is seen by PSTs as the 'final straw' in their ability or willingness to engage with the presenting challenge and resulting discomfort of learning.

PSTs in this study who were dissatisfied with the units and specifically the assessment processes saw the need for greater clarity and consistency to narrow what they needed to do, including requests for familiar tasks. This has included requests for 'cloze passage' tasks and other tightly structured tasks with specific formats to be completed, set words for each section, along with guides on exactly what to read to respond to a task. This is in contradiction to the underlying principles which value open ended tasks for PSTs to engage in multiple, varied ways in line with their own learning. The PSTs thus demonstrated a view of assessment as teacher/teaching driven rather than learner/learning driven. The embedding of assessment within the learning activities of the units supported some to develop new understanding of assessment and engage with a learning focus. For others the unfamiliarity prevented engagement with this development of tacit knowledge and contributed to their stress as well as supported a devaluation of the units.

Beliefs shape how learning is approached, such as the way learners view knowledge (Bell, Mladenovic, & Price, 2013) which impacts on engagement with assessment processes. A complex view of knowledge leads students to see "criteria as guidance rather than prescription and are less dissatisfied" (Bloxham et al., 2016, p. 479). These students focus on learning whereas those seeking "precise guidance" focus less on learning and more on teacher expectations (Bell, et al.e, 2013, p. 779) seeking a narrowing of assessment processes. This was observed in the findings, highlighting the need to look beyond building tacit knowledge of assessment, to develop PSTs' views on knowledge.

TEs also expressed some unfamiliarity with the assessment processes. For some this came with contradiction between the underpinning principles which may add to the PSTs'

search for consistency. Diversion from the overall aims may align with PST beliefs, experience and/or expectations of ITE thus reducing the unfamiliarity for PSTs though creating a disjuncture in the pedagogy within which the assessment processes are embedded. This may contribute to PST stress and support a devaluation of the assessment practices further leading to disengagement from learning.

In seeking an initial view to TE and PST perception of assessment in this ITE program, we have seen a glimpse to the impact this clash between ITE, experience, beliefs and expectations may have for PSTs. While the content and inquiry based pedagogy underpinned by constructivist learning theory challenges in its unfamiliarity and demands on cognitive processes, it is assessment that may be the final straw of discomfort for some PSTs leading to their disengagement, as shown in the PST comments. Inquiry based ITE presents many PSTs with unfamiliar assessment processes, with limited use of traditional essays and examinations, drawing on a diverse array of individual, group, presentation, creative, reflective, problem and project based tasks. This is further challenged by the embedding of assessment as learning. When faced with new assessment types "students are more likely to rely on guidance" (Bell, et al., 2013, p. 779). This may contribute to the increasing rigidity in assessment practices aimed at supporting student understanding to enable success in learning, which in turn may contribute further to student stress.

While the unfamiliarity of the assessment processes may contribute to academic stress, PSTs and TEs valued the authentic nature of the assessments. Not only must ITE utilise these assessment processes in order to support learning that will challenge existing beliefs and develop skills for interdependent, analytic and critical thinking, these practices are required knowledge for PSTs heading into schools (Hamodi, et al., 2017). It is imperative for ITE to balance the demands of assessment for accountability and measurement with the greater priorities of assessment for learning and as curriculum for PSTs.

Looking Ahead

This was a small explorative study that did not attract a representative sample of PSTs in relation to programs, curriculum areas, prior experience and experience in the MTeach.The findings are nonetheless significant in providing an initial view to PST and TE perceptions. Further study may draw on the Focus Group conversations to shape questionnaires that may be successful in capturing the perspective of more PSTs. This study also did not capture a representative sample of TEs given that all participants were casual staff members. Future study would benefit from drawing on the perceptions of permanent staff to explore potential differences in thinking and approaches.

Further limitations relate to the focus on exploring perceptions. While incredibly valuable in providing insight to PST and TE understandings and expectations the focus on perception has not taken into consideration the actual experience. It would be beneficial to expand further study to examine how the specific assessment processes are being implemented and received during seminars as well as the actualisation of learning demonstrated in summative assessment tasks. Both the seminar experiences and PST responses for summative assessment may also be used as prompts in discussion with TEs and PSTs to expand this initial exploration of perceptions. Exploration of PST assessment practice in the classroom is also necessary (Brevik, Blikstad-Balas & Lyngvær Engelien, 2017) to understand the impact of assessment as curriculum in ITE.

In recognising the dissonance in PST experience of assessment and the impact on learning we have identified key areas for further research. This study contributes to the varied

perspectives on assessment that may support PST learning. It also reminds us as TEs of the challenges to teaching, learning and assessment brought by PST previous experience, beliefs and expectations. Of great significance to us in our program is to look more closely at the contributing factors in student approaches to learning.

Further work is needed to explore the experiences of PSTs who struggle to open themselves to news ways and the impact on engagement with assessment processes, as well as the potential impact on their career as a teacher. Research is needed to understand these 'tough to move' PSTs and their experience of assessment processes to better understand the barriers and potential pathways to enable engagement in learning through the assessment practice. A challenge for us is to develop PST understanding of the processes early on and to draw in those PSTs for whom their previous experience, beliefs and expectations hold them back from opening up to alternative possibilities. This requires further work on disrupting beliefs and expectations along with support for 'sitting with suspense' and engaging with the cognitive challenge that is required.

As an initial exploration this study has confirmed some of the anecdotal concerns raised previously by TEs and PSTs, as well as supported the direction taken in these units for learning focused assessment. The in-depth view to PST and TE perceptions has unearthed the dichotomy of experience for PSTs. The approaches being utilised have successfully supported PST learning though for some they may have hindered success. In doing so this study has given shape to areas for further research and development. This research becomes imperative in the changing environment of ITE with the introduction of measures such as the Teacher Performance Assessment (TPA) in Australia leading further towards accountability and away from PST learning.

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