

2021

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Recommended Citation

Edwards, F. (2021). The Influence of Emotion on Preservice Teachers as they Learn to Assess Student Learning. *Australian Journal of Teacher Education*, 46(4).
<http://dx.doi.org/10.14221/ajte.2021v46n4.2>

This Journal Article is posted at Research Online.
<https://ro.ecu.edu.au/ajte/vol46/iss4/2>

The Influence of Emotion on Preservice Teachers as they Learn to Assess Student Learning

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Abstract: This paper explores the experience of emotion for eight preservice teachers as they learn to assess their students while concurrently being assessed. This qualitative study utilised semi-structured interviews and assessment-related artefacts. Findings indicate that emotional engagement influenced preservice teachers' assessment decision making. The teachers also experienced emotional reactions as in turn they were assessed. This paper argues for the need of preservice teachers to be cognisant of the influence of emotion on themselves and their work, to allow them to better rationalise their assessment decision making and reflect on their practice.

Keywords: Assessment, summative assessment, emotion, preservice teacher, emotional work, teacher education

Introduction

The complex nature of preservice teacher (PST) development has been acknowledged by researchers and teacher educators alike. Although there is not a large range of empirical research on the effect of emotion in initial teacher education (ITE) and teacher development (Anttila, Pyhältö, Soini, & Pietarinen, 2016), emotions have been said to be at the epicentre of teachers' work (Steinberg, 2008; Zembylas, 2003), and it has been found that "becoming a teacher is an emotionally-charged journey" (Anttila, et. al, 2016, p. 466).

As PSTs develop their ability to assess students, they encounter emotional experiences. However little research has been published on the effects of emotions on the development of teachers' assessment knowledge and skills (Brown, Gebriel, Michalides, & Remensal, 2018; Labadie, 2019). In order to contribute to this gap in the literature this paper focuses on the research question: What are the effects of emotion that preservice teachers encounter as they learn to assess? This study contributes to the discussion about the involvement of emotion in PSTs' initial experiences of acting as assessors, and also the interconnected emotions associated with being judged as PSTs. The impact of emotion on PST development is important to consider given that emotion has been shown to affect teachers' cognition, motivation and their approaches to teaching (Sutton & Wheatley, 2003).

In the following sections of this paper the model that acts as a theoretical frame for the study is described, literature is reviewed that concerns emotion and teaching including its effects on PSTs, findings are presented and discussed, and implications are identified.

Conceptual Framework

The Model of Teacher Pedagogical Knowledge and Skills (TPK&S) (Gess-Newsome 2015) was used as a conceptual framework for this study (see Figure 1). As argued by Zembylas (2007), “issues about content, curriculum and pedagogy cannot be separated from emotional issues and these are inseparable to a teacher’s PCK” (p. 356).

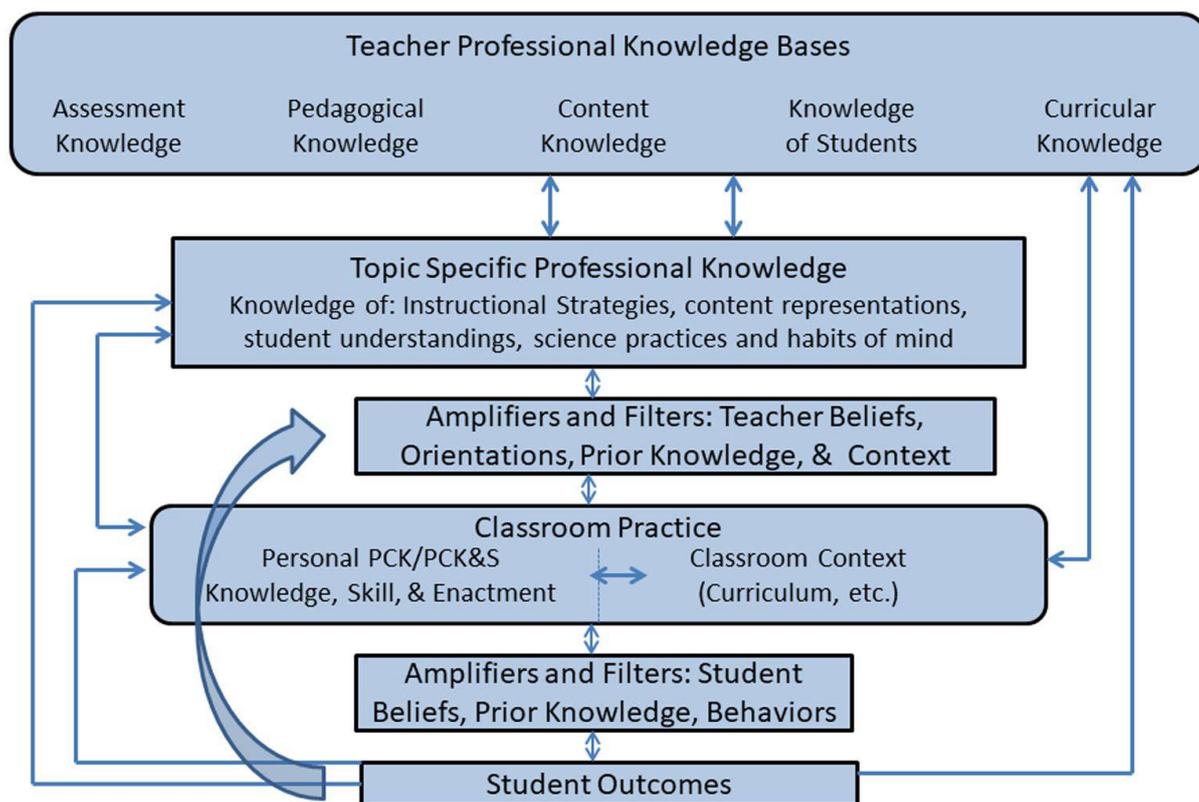


Figure 1. Model of Teacher Professional Knowledge and Skill Including PCK and Influences on Classroom Practice and Student Outcomes (Gess-Newsome, 2015)

The model of TPK&S acknowledges that normative teacher knowledge is processed by individual teachers and affected by the idiosyncratic factors in play for them. These factors act as amplifiers or filters causing teachers to pay more or less attention to ideas or actions (Edwards, 2020; Gess Newsome, 2015). Consequently more attention is paid to some ideas and actions (they are amplified) and less attention is paid to others (they are filtered) and this mediation of teacher knowledge impacts on teachers’ classroom decision making. In a recent empirical study utilising this model, teacher beliefs, sociocultural context, ethical matters as well as teacher emotional response were found to act as amplifiers and filters for PSTs decision making (Edwards, 2020), so each of these aspects provide nuanced detail within the Amplifier/Filter section in the model for TPK&S. Other recent literature also acknowledges emotion among components related to PCK (Hume, Cooper, & Borowski, 2019; Melo, Cañada & Mellado, 2017; Mellado et. al., 2014).

The Model of TPK&S therefore provides a useful framework for considering the influence of emotion on teacher assessment decision making through the effect of emotion as an amplifier and filter.

Emotion and Emotional Labour

Emotions can be described as personally enacted short-lived active states that arise in individuals as the result of stimuli. They are accepted as a part of normal life, yet until recent years have been largely ignored in the professional context of the workplace and in the process of preservice teachers' learning (Anttila et. al. 2016; Zembylas, 2004). All workers need to be adept at managing their emotions, as there are normative beliefs within societies about what displays of emotion are acceptable. This at times causes them effort as they attempt to control emotions so that outward expressions are acceptable, or fit societal norms (Wharton, 2009). Emotional labour in Hochschild's (1983) terms, is "the management of feeling to create a publicly observable facial and bodily display" (p. 7). Although emotions and their effects are now acknowledged as integral to a teachers work, little in-depth research has been carried out involving the effect of emotion and the emotional labour involved in assessment decision making for PSTs.

Emotion and Teaching

Teaching is by its nature a socially situated practice, and its relational nature leads to teaching being embedded in emotional experience (Hargreaves, 1998; Sutton & Harper, 2009). Of particular note is the effect of relationships in the emotional work of teachers. Teachers' emotions are typically evoked by interactions with those in the teaching environment (Rinchen, Ritchie, & Bellocchi, 2016), and so, not surprisingly, student-teacher relationships have been found to be an important trigger for emotions (Hagenauer, Hascher, & Volet, 2015; Zembylas, 2002, 2004). In their study of Austrian teachers, Hagenauer, Hascher and Votet (2015) found that interpersonal relationships formed between teachers and students were the strongest predictors of joy and anxiety for teachers, and lack of discipline was a strong predictor of anger. Teacher-student relationships played a strong role in teachers' emotional experiences in class. Likewise, Hargreaves (2005) contends that teachers' emotional bonds with students could affect their orientations and actions, including their responses to change.

Building on ideas from Hochschild (1983), Benesch (2018) theorises emotion labour for teachers as "conflict between implicit institutional feeling rules and discourses of teachers' training and/or classroom experience" (p. 63). A range of positive emotions such as pride, joy, hope, and satisfaction can be experienced by teachers. However, emotions related to caring can also include guilt, experienced when there is an incongruence between what teachers believe they are responsible for and what they can actually do (van Veen, Slegers & van de Ven, 2005; Zembylas, 2003). Additionally, shame or anxiety can result from teachers feeling inadequate and powerless (Bibby, 2002; Taxer & Frenzel, 2015). Wu and Chen (2018) found that teachers can hold positive and negative emotions simultaneously. Steinberg (2008) explains that "the emotional rules of schooling expect teachers to control their emotions of anger, anxiety, vulnerability, and to express their feelings of empathy, calmness and kindness" (p. 51). As a consequence of this, an aspect of teachers' work not necessarily obvious to observers is the emotional labour of regulating both internal and expressive components of emotion. This labour affects teacher wellbeing, as it can lead to emotional exhaustion, burnout or stress as well as feelings of inauthenticity and compliance (Pishghadam Adamson, Shayesteh Sadafian, & Kan, 2014; Sutton & Harper, 2009; Taxer & Frenzel, 2015).

Emotion and Teacher Decision Making

Emotion has been found to be linked to professional sense making and teacher decision making and action taking (Frenzel, 2014; Nguyen, 2014; Schmitt & Datnow, 2005; Zembylas, 2004). Lerner, Li, Valdesolo, and Kassam's (2015) review argues that "emotions constitute potent, pervasive, predictable, sometimes harmful and sometimes beneficial drivers of decision making" (p. 799). How teachers understand student emotion may also affect their decisions and interactions with students (McCaughy, 2004). For example, McCaughy (2004) used case study to document an example of how a teacher's understanding of student emotion was inextricably linked to that teacher's thinking and decision making. Similarly, Sheppard and Levy (2019) have found that teachers' decisions can be based on students' real or anticipated emotional responses, in order to avoid negative reactions in attempts to foster care and safety and prioritise wellbeing. Additionally teachers were found to want to engage students' emotions and to sense an attitude of care in what students are learning about.

Emotion and Assessment

Studies have found that emotional knowledge and energy is used as teachers connect with subject matter, students, curriculum planning and their actions (Edwards, 2020; Isenbarger & Zembylas, 2006; Zembylas, 2004; Zembylas & Barker, 2002). Teacher decisions in the area of summative assessment can be particularly emotionally charged as these "engender stronger and more negative emotions" (Brown, Gebril, Michaelides & Remesal, 2018, p. 205). Steinberg (2008) contends that assessment is an emotional practice, and goes as far as to describe teachers as being on an emotional rollercoaster (Steinberg, 2015), emphasising that assessment decisions are not "neutral" and calling for assessment to be recognised for the emotional practice that it is. For example, because of the emotions involved, teachers have been found to be less confident to make "fail" decisions than "pass" decisions when grading summative assessment, and in some cases less robust information has been found to undermine more robust evidence (Brackett, Floman, Ashton-James, Cherkasskiy, & Salovey, 2013; Tweed, 2013).

The twin obligations of teacher accountability and the need to care for students can cause considerable pressure and evoke strong emotions for teachers. As observed by Brown and colleagues: "these two obligations press against each other most visibly around assessment of student learning" (Brown, Gebril, Michaelides & Remesal, 2018, p. 207). When assessment results are used as a defacto measure of teacher effectiveness, thereby affecting teacher reputation, this further increases teachers' emotional responses and vulnerability (Kelchtermans, 2011). Teachers' views about protecting and caring for students can increase emotional labour, especially for teachers who desire to develop a deep bond with students, or take a learner centred approach (Xu, 2013). This state of affairs can therefore influence instructional decisions about assessment and motivate particular actions as teachers work to protect themselves and/or their students.

Emotion and Preservice Teachers

The influence of emotion in PST development was made evident through the work of Stuart and Thurlow (2000), who found that PSTs recalled the emotion connected with their own specific school experiences as students, and that this shaped their views of teaching practice. This being the case, PSTs have emotional expectations, for example they expect to

experience enjoyment while teaching, and Eren (2014) has found that this is linked to how they envisage future goals and expectations. In their study of 19 PSTs in Finland, Anttila, Pyhältö, Soini, and Pietarinen (2016) found that both academic work and teaching practice generated a range of emotions, both positive and negative. Additionally patterns of emotions have been found for PSTs as they focus on studying and learning to become a teacher (Anttila, Pyhältö, Soini & Pietarinen, 2017), with the majority of emotions being positive, but changing in nature. The complex dynamic between the PSTs and their learning contexts appear to regulate their academic emotions. Anttila et al.'s (2016, 2017) work draws attention to the need for PSTs to identify and regulate emotions to safeguard their own well-being, as well as to benefit their learning environment.

PSTs' first experiences in schools are particularly influential on their development and are emotionally charged. The strong positive and negative emotions PSTs experience are influenced by personal factors as well as the sociocultural contexts they find in schools (Edwards, 2017; Nguyen, 2014, Yang, 2019). During practicum experiences PSTs are in a vulnerable position, as the transitions are often abrupt and can be traumatic (Haggarty & Postlethwaite, 2012; Huberman, 1991; Lortie, 1975; Vonk, 1993). The impacts of student behaviour or colleagues' comments, for example, can affect the emotion they experience. Mentor/associate teacher judgements of PSTs' practice can cause a range of emotional responses including confidence, self-efficacy, or worry, depending on how feedback is given. Yang's (2019) study of 31 PSTs demonstrates the impacts of students and supervising teachers on PSTs' emotions, as well as revealing the link between emotion and cognition, and its impact on teaching identity.

In the case of assessment in New Zealand, the tension and emotion around assessment is keenly felt almost as soon as PSTs commence teaching in their first teaching positions, as they are tasked with standards-based summative assessment that directly contributes to school leavers' qualifications (Crooks, 2011; Edwards, 2017). PSTs need to develop emotional resilience in order to cope with the challenges of high stakes external accountability, the challenges of students and the challenges of work-life balance as a teacher (Day & Hong, 2016; Reyna & Weiner, 2001).

Thus it is important that teacher educators alert PSTs to the emotional nature of their work, and their own emotional responses to it as they learn to negotiate the emotional terrain of becoming a teacher, teaching and assessing (Intrator, 2006; Powietrzyńska & Gangji, 2016). As argued by Uitto, Jokikko and Estola (2015), a broad theoretical understanding of emotions and their complexity is needed in ITE.

Methods and Data Gathering

This paper reports on a qualitative study involving eight secondary PSTs who were recruited from one ITE programme in New Zealand. The participants were involved in the study through their 10 month graduate ITE programme. The PSTs were all graduates, four were recent graduates and four had been working in other professions before deciding to retrain as teachers. At spaced intervals over the study time frame these teachers were interviewed four times using semi-structured interviews, and were asked to talk about their experiences as well as any self-chosen artefacts that they felt represented their developing abilities to assess student learning. Each interview followed the same format using the same starter questions. The series of interviews provided the preservice teachers opportunities to experience different aspects of assessment and reflect on their responses over the course of their programme, as they learnt about assessment in university and experienced assessing students while posted on teaching practice. The teachers were encouraged to share their

experiences as they learnt how to assess and make assessment related decisions. They were shown the Model of TPK& S early in the study and were asked to focus on the Amplifiers and Filters that they felt were affecting their practice. All aspects of the study complied with the *University of Waikato Ethical Conduct in Human Research and Related Activities Regulations* (2008). The eight PSTs who volunteered to be involved in the study consented that their data be used.

The data gathered were analysed using the software NVivo8, by considering the interview transcripts and artefacts. With respect to coding, firstly all data that represented emotion was coded into the same category. This included data that explicitly mentioned emotion or emotional responses, feelings and so on, and data in which emotion was communicated by tone of voice and non-verbal expression. Following this, the data was analysed further, in alignment with the research question and acknowledging the role of amplifiers and filters in the Model of TPK&S. Secondary coding from the 'emotion' data codes allowed codes to be assigned firstly according to two subcategories: assessing as teachers, and being assessed as teachers. After this, nuanced themes were identified within the subcategories as follows: effects of assessment, making judgements (marking), fairness, preparing students for assessment, designing tasks, teaching for NCEA, impacts of beliefs, motivation, associate teachers. The themes were evident within both subcategories, and in this paper the two subcategories have been used to organise the findings in the following section. Pseudonyms have been used for the teachers' names, and interviews coded so that [A, I2] refers to a quote from a preservice teacher A in their second interview.

Results

In this section two major subcategories are presented that illustrate the effects of emotions encountered by preservice teachers as they learn to assess: emotion as it relates to preservice teachers as assessors and emotion as it relates to concurrently being assessed as preservice teachers. Themes have been integrated within each of these.

Assessing as Teachers

All the participant PSTs talked about their emotions and feelings without prompting when they reflected on their summative assessment practice. They explained that their emotional responses impacted on their classroom assessment decisions and their confidence when they were assessing students' work. They explained how and when emotion affected their summative assessment practice and decision-making. In particular, emotion influenced how the teachers prioritised the use of their assessment knowledge in classrooms. The following are some examples of the effect of emotion, found in this study: making assessment judgements (especially pass/fail decisions), assessment design and implementation, impacts of PST beliefs, NCEA challenges, and the impact of mentor/associate teachers.

Making Assessment Judgements

Five of the teachers talked about the struggles they experienced with emotions as they tried to make good assessment decisions. Bella in particular found it difficult when making

judgements while marking student work, particularly in relation to giving students failing marks or low grades:

Although decisions came into it, I hated marking to be honest. Like if they were so close [to passing], I just feel mean.... I don't even know the students but I still feel mean.... because I should have failed a couple of them, and I know that because they hadn't related [their research] to other sources, but they had [done well in other areas of the task] so I couldn't justify failing them. So I 'Achieved' [passed] them. [Bella, I4]

As illustrated in this example, Bella made a conscious decision to be less than honest by awarding passing Achieved grades in a high stakes assessment when the students had not met all of the required criteria to warrant this grade. She wanted the students to pass, as she felt that she was being too unkind if this did not happen. This example highlights how Bella's practice was affected by her emotion, as she applied a holistic judgement rather than a focussed judgement based on the criteria in the standard. Her emotions shifted her focus and overrode her knowledge of how to mark work accurately and fairly, as her emotional concern for her students meant she did not apply the marking schedule accurately in her grading. Instead, she inflated the grades in order to make the students feel positive about their learning. She did however admit to feeling a level of internal conflict about her decision to do this.

Assessment Design and Implementation

Elisa discussed her experience of assessing an academically weak Year 10 (14-15 year olds) science class. She wanted to measure their learning progress but felt strongly that she needed to help the students feel more positively about learning. She made the decision not to follow the usual protocols for administering the summative assessment task. Instead she gave the class 'hints' on the board and she adjusted both the questions and the marking criteria in order for her class to gain higher grades in the standards based system.

I did all the criteria, and on the board I put all of the things they needed to do like "you need to have the units", "you've got to read the question so you'll know what units to use" ... It was a good payoff. [Elisa, I4]

Elisa talked about feeling guilty about doing this as she knew it went against what was expected of her, but felt that in the end the positive responses she received from the students justified the lack of rigour in her assessment processes and marking. Again, this example demonstrates a preservice teacher's summative assessment decisions based on emotion overriding the expected practice of teachers. PSTs talked about their decision-making with respect to assessing inclusively as a process in which they had to weigh up a range of factors, including emotional responses, in order to get the best "payoff" for the context. The guilt and conflict regarding their actions which contradicted the schools expectations and policy added to their emotional work.

Impact of Personal Beliefs

The PSTs related stories of their own emotional responses to being assessed when they attended school as students, and often appeared to project these same emotions on to the students they were assessing. They mentioned that they felt scared and worried about the effects the grades they assigned would have on the students themselves, because they remembered the effects grades had on them. At times they felt they were being unkind and

uncaring if they gave students low grades. The intensity of emotions they experienced at times meant decisions were very hard to make at times, particularly with respect to grading weaker students' work.

Simon talked about his experiences of assessing others by continually referring back to his own experiences as a student and employer, as these experiences were formative in shaping his own beliefs about assessment. He was not successful at school because of the anxiety he experienced during examinations. This led to him leaving school when he was very young and working for many years as a tradesman, eventually training a number of apprentices. He decided to change to a career in teaching later in life, and completed undergraduate degrees before entering an ITE programme. Simon appeared to assume that his negative experiences with examinations would be echoed for his students. He voiced strong opposition to the use of formal examinations, as he believed they did not help students learn and did not promote deep learning. He believed that examinations encouraged rote learning, which he felt reduced students' engagement and hindered real learning. Simon entered ITE with a very negative view of summative assessment based on his personal experiences and emotional responses to being assessed.

Again speaking from my own experience, and going back further, it was all learning by rote. I hated it, and I got good at doing it... So you got your marks, and you passed, and whatever you had to do, and then you just forgot about it... from my own personal experience, mainly exams, and as I say I hated them. I got stressed out, wouldn't sleep, all that stuff. [Simon, II]

Simon explained that these experiences meant he wanted to teach in a way that did not emphasise formal assessment. He had gained experience of assessing apprentices in a practically based career before entering ITE, and he felt that the methods used for assessment in the workplace context gave him insights and strengths in alternative forms of summative assessment for science. Consequently he redesigned assessment tasks to reduce their formal nature, even when this contravened school protocols.

NCEA Challenges

Emotion was also evident when the PSTs interacted with their associate teachers (ATs), particularly when learning about National Certificate in Educational Achievement (NCEA). NCEA is the New Zealand standards based school leaver qualification system and it includes a high proportion of credits gained from classroom assessments designed and marked by teachers. In general the preservice teachers were not confident using the NCEA system and at times this resulted in them feeling very stressed. They commented on the lack of motivation towards NCEA from their students, and felt this was out of their control. PSTs talked about many students' attitudes of just working to the minimum and choosing not to sit external examinations because they did not "need" the credits. This made a number of them very frustrated as they felt that students were not pushing themselves to their potential. PSTs felt helpless as they had no control over this aspect of assessment.

Impact of Associate Teachers

PSTs found that their interactions and relationships with their ATs often generated or included an emotional element.

In one of her practicum experiences Kate found the practices of her AT difficult to reconcile with her own beliefs when she was asked to run a particular summative assessment,

and her resulting emotional state of confusion and worry meant she found it hard to make decisions.

... you can get a bit negative with some of your associates. You look at them and they say, well this is going to be in the test so this is going to be in the exam... I didn't really think it was a good gauge of where the students were at ... and I felt a bit jaded as well, and the fact that she had told me to ask these questions, like 'there is a set of questions, ask these'.. [Kate, I4]

At times PSTs found that their ATs themselves were not happy or confident working within the NCEA system, and this led to decreased levels of confidence and further uncertainty for the novice teachers, as illustrated in this quote by Bella:

There was a lot of chatter in the science workroom between the two biology teachers, and the moderation, they were not 'confused', but were debating whether the student should get an Achieved or Merit because it was so vague... well it was quite negative, quite negative about the standards really... when it came to marking I felt there was a lot of negative vibes, not knowing how to rank the students because of its vagueness. [Bella, I2]

In this example Bella found that her teaching colleagues were uncertain about their marking of work against the standards, and as a result she became less confident and worried about her ability to mark the tasks accurately. The emotional side of such interactions contributed to a lack of confidence in how she marked students' work, and she explained how she struggled with indecision and battled with a reluctance to award a grade, for fear of getting it wrong.

In both of these examples with Kate and Bella the interactions with ATs impacted negatively on the teachers' emotional states and levels of confidence when making assessment decisions, Kate felt unable to make decisions about assessment questions, and Bella struggled to mark student work. When these sorts of experiences were recalled by the teachers in this study, they mentioned feelings of confusion, worry and doubt which affected their ongoing learning as teachers.

On the other hand, the actions of some ATs contributed to building teacher confidence by providing positive feedback or showing they had faith in them, resulting in the teachers feeling calm and capable. For example Elisa's level of worry and concern dropped when she felt that her AT trusted her:

I did marking for Year 11s, for their practice test, which... My associate [AT] was just kind of like... 'I trust you', so that's fine. She didn't really go over my marking, but I did have lots of questions for her at the beginning, and we went through all of those. So she was confident with how I was doing it. [Elisa, I2]

The emotion that Elisa experienced as a result of this trust led her to feeling able to make more confident summative assessment decisions, without needing to check for approval from her colleagues.

Given that data in this study was gathered over a year-long teacher education programme, it could be expected that PSTs would develop greater cognisance of the effects of emotion on their practice over time. However this was not found to be the case, and all participants showed little development in their understanding of the consequences of assessment (Edwards, 2017), and little development of awareness of the impact of their own emotions on the assessment related decisions they were making.

Being Assessed as Teachers

Participants in this study experienced emotional reactions whilst being assessed as PSTs. They felt that the results their students achieved in summative assessments would be used by others to judge their teaching competency. The PSTs talked about this being quite draining emotionally as they dealt with feelings of vulnerability and uncertainty. Mary and Wiremu articulated these fears, and the self-doubt that resulted when their students did not do well in summative assessments:

I guess that is the biggest fear, it's just, oh man, imagine if I did this whole test and they all failed. I'd suck as a teacher ... I felt it was on me if they didn't pass, like it was my fault because I hadn't taught them correctly. [Mary, I2]

I am kind of nervous about what my judgement is going to be. Am I going to be judged based on my judgement of others? And so these things all go through your head. [Wiremu, I4]

Mary observed that she was not the only PST who was concerned about being judged by other teachers. She noticed that others were cautious about comparing classes:

I think with what I saw at [...] School, everyone is very ... they don't want to see their class not doing well when compared to someone else's class. And so you do see that kind of struggle, like how well is your class doing? Because it is doing the same as mine so we're alright then. [Mary, I4]

This quote highlights the nervousness PSTs feel in being judged or compared to others based on their students' performances.

These PST responses indicated they held a deep-seated fear of being found lacking as a teacher by others. Wiremu realised that he was assessing the capabilities of one of his ATs based on how well the AT's students performed. Wiremu reasoned that if he was making judgements about other teachers, they in turn would be making judgements about him, and this made him feel uncomfortable and vulnerable. As a result of the emotions evoked by being assessed by other teachers, the PSTs lacked the confidence required to share their students' summative assessment data and to speak about it with other teachers.

The PSTs also judged their own effectiveness based on the summative assessment results generated by their students, and took these results very personally. Among others, Kate indicated the responsibility she felt for her students, and how this scared her:

That's what I'm not a little bit scared of but I don't want to feel that I have let the kids down. [Kate, I4]

Similarly, others felt quite a personal burden when it came to their senior classes, and if any students failed they interpreted this to mean they were poor teachers:

I felt it was on me if they didn't pass, like it was my fault because I hadn't taught them correctly. [Mary, I2]

Well I had a bit of taste for it and I didn't realise I would take it so personally, all the bad results. I was just like, "I remember teaching you this. I remembered having conversations." [Wiremu, I2]

Later in her preservice year, Mary reflected on the likely causes of their students' results, and by then had become more reconciled to the idea that students' results were not solely her responsibility:

But just seeing that just because your students don't do well doesn't mean you're not a good teacher. It just depends on the student or how the exam was worded ... There are all these excuses and it is good not to rely on excuses but teachers do their best. [Mary, I4]

The PSTs in this study struggled to find the balance between reacting emotionally to students' assessment results because of a feeling of personal responsibility, and stepping far

enough away to realise that the students themselves were responsible for their own learning. However, as time progressed four of the teachers seemed to strike a balance, moving from taking full responsibility for students' grades which generated intense emotional responses, to attributing the grades to the students themselves, at least in part. This reduced the emotional load they felt, especially when marking student work.

Susie and Bella naturally felt relaxed and happy about their teaching when their students gained good results in summative assessments. They saw these results as confirming their expertise as teachers. They talked about the positive thrill they got from seeing their students doing well in summative assessment tasks, and they felt this reflected well on them as teachers:

Like, okay, you're testing the kids but you're kind of testing yourself at the same time. It's quite amazing. [Susie, I2]

My associate said no-one has failed yet, so I must have been doing something right. [Bella, I4]

So if the classes did well, the teachers tended to be very happy and excited, but if the classes did poorly, the PSTs tended to feel very discouraged and inadequate, leading to lower motivation levels.

Benjamin was the only PST in the study who did not express a level of anxiousness about being judged by other teachers based on his students' summative assessment results. He did see the students' results as being a reflection of his teaching.

But now it is also a reflection on the teacher, and what they need to change. You can assess what different approaches teachers are taking. Assessment is now... I think it is pretty 50/50, the student and the teacher, because the assessment is about the teacher as well, and what is actually working. Whether teaching techniques are working for them. [Benjamin, I1]

Benjamin saw being judged as a necessary part of improving his teaching practice. *Yes, I think it is important to have the teachers assessed as well as the students I think, for the benefit of the students. [Benjamin, I2]*

Benjamin appeared to approach his work more clinically, and possibly because of his previous work experience, as well as his personality type, he welcomed critique without expressing an obvious emotional response.

In summary, the PSTs in this study showed evidence of being emotionally involved in the process of summative assessment, while learning to assess others. They also experienced a range of emotion while being assessed as PSTs. They communicated real fears and apprehension that they felt when they made assessment-related decisions, especially as they considered their students' reactions to being assessed. The PSTs indicated that emotion tended to cause them to be more tentative in making summative assessment decisions and was a source of worry for them. The ATs they worked with were influential, particularly on their confidence about assessing learning. The PSTs were often nervous and fearful of the judgements others might make about them as teachers, based on their classes' results and there was no evidence that they talked about these fears with anyone.

Discussion

In many countries, the current schooling climate emphasises accountability and the need for dependable assessment data. This focus requires those responsible for assessment to be knowledgeable and skillful in their assessment decision making. By extension then, the development of classroom teachers' abilities to make sound decisions about assessment is very important. This is especially the case in jurisdictions such as New Zealand where there

are few standardised assessments, and instead classroom teachers have direct input into how and when students are assessed, including assessment that leads directly to school leaving credentials.

This study illustrates the impacts and effects of emotion on preservice teachers, and these findings add to those from other studies which highlight the emotional work of teachers and the strength of influence these emotions bring to bear on teachers' decisions (Anttila et al. 2016; Näring et al., 2006; Soini, Pyhältö, & Pietarinen, 2010; Yang, 2019). As Kelchtermans (2005) argues, "emotion and cognition, self and context, ethical judgement and purposeful action: they are all intertwined in the complex reality of teaching" (p. 996), and this complexity is evident in the assessment focussed challenges and dilemmas described by PSTs in this study. For example in this study PSTs were able to articulate the complexity of challenges as they thought through decisions that were influenced by their beliefs about assessment, their understanding of assessment systems, their sensitivity to students' needs and so on. As found by O'Connor (2008) and van Veen, Slegers & van de Ven (2005) the range of emotions experienced was wide-ranging.

In this study emotion was found to influence PSTs' instructional approaches, including assessment decision making in way that are similar to those reported in other studies (Jacob, Frenzel & Stephens, 2017; Trigwell, 2012). All PSTs in this study communicated a sense of emotional engagement and relationship with their students with respect to assessment. They also experienced a range of emotions as they made instructional decisions and assessed students work. As found by Hagerman et al. (2015) student-teacher interpersonal relationships played a strong role in the PSTs' emotional experiences in class.

The PSTs in this study experienced a wide range of positive and negative emotions as they learnt about assessment and started assessing students, and these were seen to act as amplifiers and filters (Edwards, 2020; Gess-Newsome, 2015) driving their classroom practice. A number recalled their own feelings of anxiety when being assessed as school children, and explained that they projected these feelings onto their students and acted accordingly. The effects of this were evident in teachers' assessment decisions, as has been found by Zembylas (2004). For example, those PSTs who remembered feeling anxious and worried when facing examinations tried to avoid or reduce the use of examinations with their classes, or at least tried to mitigate stress for students. Research evidence does point to students reacting emotionally to being assessed and receiving feedback (Vogl & Pekrun, 2016), so this awareness is understandable. PSTs in this study redesigned assessment tasks to try to make them more engaging, and at times reported that they adjusted conditions to enable students to do better in assessments. This adds to the evidence of how teachers focus on trying to reduce negative emotions in their students (McCaughy, 2004; Sheppard & Levy, 2019), and alerts those working with inexperienced teachers of the motivations that might be in play as amplifiers/filters as they adjust assessment tasks or change assessment conditions.

The PSTs in this study were found to experience feelings of fear, worry and concern during the process of marking and/or grading student work, as they were concerned about the effects the grades might have on the students. When discussing marking, the PSTs at times appeared to be quite stressed. Their concerns for students' emotional responses were sometimes seen to take priority over honesty and fairness in marking, as evidenced by them "bending the rules" at times. These sorts of actions have been reported in other research as well (Brackett et al., 2013; Brookhart, 1999; Brookhart, 2013; McMillan, 2003; Randall & Engelhard, 2010; Sheppard & Levy, 2019; Tweed, Thompson-Fawcett, & Wilkinson, 2013). These can be attributed to the pressures that stem from high stakes assessment in any system focused on accountability, which at times clash with teachers' own motivations and beliefs (Amrein-Beardsley, Berliner, & Rideau, 2010; Nichols & Harris, 2016). Put another way, the amplifier/filter effect of the context contributed to their emotional work .

Being heavily emotionally engaged with students and their academic progress can cause teachers to become disappointed or frustrated at times (O'Connor, 2008), and this was evident in this study. For example, all PSTs described times when they felt disappointed or angry but powerless as they observed their students underperforming or opting out of summative assessments. This behaviour has been found to be a feature for some students in NCEA assessment as they focus on just achieving the minimum credits required for their qualification (Graham, Meyer, McKenzie, McClure, J., & Weir, 2010; Hipkins, Vaughan, Beals, Ferral, & Gardiner, 2005; Meyer, McClure, Walkey, Weir, & McKenzie, 2009). Shapiro (2010) argues such feelings are a result of the tension between teachers' concerns of an intellectual nature and their emotional responses. This sort of tension adds to teachers' emotional labour (Isenbarger & Zembylas, 2006) and may well be more keenly felt in PSTs and beginner teachers given their lack of experience. Certainly the tenor of some of the discussions held during interviews alluded to considerable emotional work being carried out.

Being judged as a teacher also generated emotional responses for PSTs in this study, as they felt that others were likely to judge their performance based on their students' grades. This likely produced positive emotions when their students did well and negative emotions when students did poorly in assessments, and at times generated a level of self-doubt for the PSTs. They felt vulnerable when their students' grades were scrutinised by others, including their ATs. Vulnerability has been described as "feeling that one's professional identity and moral integrity, as part of being 'a proper teacher', are questioned" (Kelchtermans, 2005, p. 997), and can arise in teachers when they do not understand the limits of their professional efficacy. It is important for PSTs to have realistic expectations of their influence.

This study was conducted over an extended period of time, in order to see what changes were evident as PSTs garnered experience and knowledge about assessment. It was interesting to see that near the end of the study there was no change in the types and level of emotions that PSTs experienced when they were assessing their students' learning and that these could still be seen as amplifying and filtering ideas on which PSTs based decisions. For example, they were still referring to their own specific school experiences, similar to findings of Stuart and Thurlow (2000). Near the end of the study, PSTs were still focussing on the mitigating the immediate emotional responses their students might have to assessment results, rather than thinking about how emotion might impact the students' ongoing learning through their responses to feedback. An awareness of students' emotional responses to feedback is an important but under-explored area (Rowe, 2016), and the PSTs in this study appeared to not yet have reached a point in their development where they were concerned with this. However, there was evidence of change over time in their views and emotional engagement with being assessed as teachers. Early in the study many of the PSTs felt that they were being judged based on their students' results, and they felt direct responsibility for these results. As time went on, some moved to a realisation that they alone did not have to carry the burden of responsibility for students' assessment results, as the students themselves were responsible for their learning.

Throughout the study, emotion can be seen as a contributor in the amplifier/filter section of the Model of TPK&S (Gess-Newsome, 2015) as it is part of the lens of the teacher, affecting classroom practice directly. Previous research (for example Brown et. al., 2018; Edwards, 2020; MacIntyre, 2002) has argued that emotion has a function as an amplifier, affecting action, and this study provides evidence of this in the context of preservice teachers.

Conclusion

This study offers a unique view on the involvement of emotion during the development of PSTs' assessment practice as they assess others, and concurrently as they themselves are assessed. PSTs carry a heavy emotional workload throughout their ITE year as they negotiate their early summative assessment practice in which concern for students is balanced with assessment expectations from their schools. Concomitantly they are dealing with being assessed as PSTs, and the emotion that this entails. One obvious necessity therefore is that in order for PSTs to thrive, they need both emotional awareness and understanding as well as support through this crucial stage of their early career.

Implications

This research has important implications for teaching and teacher education. Professionals working with PSTs need to be cognisant of the influences of emotion on decision making and classroom practice, and in particular how emotion affects the quality of assessment practice (Uitto, Jokiko, & Estola, 2015). ITE lecturers are in a position to help PSTs develop an awareness of the complexity that emotion can add to their work and the potential range of emotions they may encounter. Development of this awareness in turn is likely to help PSTs consider the effects of their own emotion experiences on their decision making. Awareness raising could be achieved through groups of PSTs considering and sharing their own emotional experiences of assessment, as well as reading research that focusses on emotion in assessment. Emotional and pastoral support for PSTs in ITE when they face these challenges would also be beneficial.

An implication for PSTs is that they would be advised to carefully consider the emotions that are operating for them as amplifiers and filters, and how these can interplay on multiple levels causing them to prioritise factors when making assessment decisions. PSTs should aim for deliberate and purposeful development of assessment knowledge and skills over time rather than expecting that they will learn a narrow range of skills in ITE that will suffice for their summative assessment practice. Within this approach they could, for example, learn about and consider the emotional work they will be doing involving summative assessment. In this way they will be better prepared when unexpected emotions arise, and will better be able to recognise these and their effects on their well-being (Zembylas, 2004), and call on a breadth of knowledge as they make decisions.

A further implication from this study is the need for ATs to understand and communicate the involvement of emotion in PSTs' summative assessment practice while on practicum. During this challenging phase of ITE, ATs are in a position to provide emotional support as they help PSTs negotiate development in this area and cope with the dilemmas they encounter, acknowledging that emotion works as an amplifier/filter in classroom decision making. Equally important is for ATs to be cognisant of the emotions PSTs experience as they are being observed and assessed while on practicum. This calls for ATs to be explicit in how they are judging PST development (e.g. whether they use the students' grades as a quasi-measure of preservice teachers' effectiveness). It also calls for the provision of emotional support for PSTs through the practicum phase of ITE.

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