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A story of culture and teaching: the complexity of teacher identity formation

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ABSTRACT

Research in teacher education repeatedly suggests that the background and underlying beliefs held by pre-service teachers about teaching and assessment act to shape their interpretations of ideas, powerfully influencing their praxis and their developing teacher identity. This paper explores how a young New Zealand secondary science teacher, raised and educated in Māori-medium and then English-medium New Zealand schools, develops his identity as a teacher as he navigates a range of educational contexts and experiences. His views on assessment provide a focus. The paper presents a case study drawn from a two-year longitudinal study, comprising a series of interviews with the teacher, as he transitioned from a university graduate to a qualified science teacher working in his first school. The complexity of teacher identity development is highlighted, particularly for teachers for whom cultural identity and indigenous world view is important. It suggests that beginning teachers need more time in their pre-service teacher education to reflect on the influence their formative educational experiences have on who they are becoming as a teacher.

Within the context of a larger research project exploring the development of assessment literacy in beginning secondary science teachers, one teacher's story stood out. His experience growing up in two cultures gave his reflections on the development of his own assessment beliefs and practice a particular richness that we felt merited further examination. In this paper we use the concept of developing teacher identity to examine what he said and present some implications that arise.

The influence of preservice teachers' backgrounds and their already-held beliefs, theories and attitudes about teaching, learning and assessment on their teaching and assessment practices has been highlighted in a number of international studies (Abell & Siegel, 2011; Buck & Trauth-Nare, 2009; Flores & Day, 2006; Jones, 2010; Kennedy, 1999; Lortie, 1975; Palmer, 2007; Wang, Kao, & Lin, 2010). The sources of these beliefs, theories, and attitudes have been attributed in part to the 'apprenticeship of observation' through teachers' own schooling (Lortie, 1975), as well as the cultural and spiritual contexts which form

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the backdrop of experience for beginning teachers (Gibbs, 2006). The way teachers view themselves as teachers, their professional teacher identity, develops over time. Palmer (1993) explains it as follows:

> By identity I mean an evolving nexus where all the forces that constitute my life converge in the mystery of self: my genetic makeup, the nature of the man and woman who gave me life, the culture in which I was raised, people who have sustained me and people who have done me harm, the good and ill I have done to others and to myself, the experience of love and suffering–and much, much more… Identity is a moving intersection converging in the irreducible mystery of being human. (p. 13)

Teachers develop a professional identity as they learn a multitude of skills, gain a breadth of knowledge and move from novice to experienced practitioners, and this journey is a complex and idiosyncratic one. It has been observed that 'the journey of becoming and being a teacher is unique for each teacher and yet depends on others' (Gibbs, 2006, p. 2). There is a growing appreciation of the need to help teachers situate themselves within their own socio-cultural contexts in order to support the development of their professional identity (Brown, 2004; Day, 2013). This perspective links mind, practice and context, rather than focussing solely on cognition (Bell, 2011) and therefore offers a lens that can usefully link the background experiences and beliefs of a teacher to his understandings of his own practice, and is therefore used here to frame a discussion of the issues raised. Because it foregrounds interaction and context, a socio-cultural perspective has particular relevance to understanding the complexity of teacher identity and its development (Olsen, 2008; Vagan, 2011).

Where teachers' initial life experiences involve two cultures, they are potentially able in turn to provide rich bicultural educational experiences for their students. However, there are clearly challenges for any teacher integrating contrasting cultural perspectives. By exploring the experiences of a young Māori secondary science teacher as he progressed through his pre-service teacher education and into his first teaching position, we are able to examine his perceptions of the influences and beliefs that most strongly shaped his growing professional identity as a teacher. His understanding and practice of assessment, in particular the use of oral assessment, is linked to early experiences and long-held beliefs, and he predicts these will have long term effects on his teaching practice.

New Zealand context

New Zealand's official status as a bicultural nation places special emphasis on providing all students with a sense of identity that draws on both Māori (indigenous) and non-Māori cultures. School-aged students in New Zealand have the choice of attending English-medium or Māori-medium schools. Māori-medium schools use a curriculum centred on the Māori worldview, traditions and customs, *Te Marautanga o Aotearoa* (Ministry of Education, 2008) whereas English-medium schools use English as the language of instruction and base their teaching on *The New Zealand curriculum for English-medium teaching and learning in years 1-13* (Ministry of Education, 2007). Each curriculum document has been designed to reflect what is valued for the groups for whom it was developed and while structurally similar, there are differences in content and emphasis. This means the emphases in teaching and learning, and in cultural identity in Māori-medium schools are not

identical to those in English-medium settings. Some New Zealand students are entirely educated in Māori-medium schooling, and some move from Māori medium to English medium or vice versa during their education.

Schools in New Zealand are self-managing, able to determine their own curriculum and assessment within the policy framework and curriculum established by a centralised Ministry of Education. This means New Zealand teachers have relative freedom to teach and assess learning in ways that best suit their students and their school community within the frame of the curriculum, although senior secondary teachers are constrained somewhat by school leaver qualifications. Of particular significance in New Zealand is the direct responsibility classroom teachers hold for high stakes summative assessment contributing to the three levels of school leaver qualifications using a standards-based qualifications system, the National Certificate of Educational Achievement (NCEA) Levels 1–3. Within this system a range of credit-generating standards are used, and the students' accumulation of credits leads to their gain of qualifications. A proportion of the standards available for each level of NCEA are externally examined, and a proportion are assessed by classroom teachers in their own schools; the choice of standards is determined by individual schools. For classroom-based assessed standards teachers are able to create their own assessment tasks and are charged with making interpretations of their assessment data. Many secondary teachers use 'tried and true' assessment methods and tasks, rather than developing their own tasks, and this leads to less variation than is theoretically possible in this system of assessment. Moderation of teachers' judgements has been standard practice in New Zealand senior secondary schools since the introduction of NCEA in 2001, and there has been ongoing attention given to moderation, reliability and grading practices in secondary schools over the last decade to provide a focus on developing a shared understanding of standards.

Theoretical background

In this section we briefly survey the literature that focusses on the development of pre-service and beginner teachers, particularly with respect to their development of professional identity, and their assessment knowledge and practice. The development of teacher identity is discussed and the role of culture in teachers' assessment practices is also briefly explored.

Identity can be described as 'who or what someone is, the various meanings people can attach to themselves, or the meanings attributed by others' (Beijaard, 1995, p. 282). Although holistic in nature, the concept is applied in diverse contexts which enables consideration of multiple identities such as cultural identity and professional identity (Vagan, 2011). Teacher identity, commonly regarded as a professional identity, is linked strongly with self-concept and the social systems within which the teacher experiences what it means to be a teacher. It is directly related to their teaching and assessment practice. The development of teacher identity has been shown to be a complex and culturally-based process, occurring over time and in a range of contexts (Chong, Ling & Chuan, 2011; Danielewicz, 2001). Research has shown that teacher professional identity impacts on motivation, effectiveness, job satisfaction and commitment, therefore making it an important area for focus for those involved in teacher education (Chong, Low & Goh, 2011; Day & Kington, 2008). Its formation has been argued to be an important process and one in

which teacher education plays a significant role (Harlow & Cobb, 2014; Korthagen, 2004; Otteson, 2007).

A number of researchers (e.g. Coburn, 2001; Priestly, Edwards, Priestly, & Millar, 2012; Spillane, 1999) draw attention to the complex relationship between what teachers believe and can do, and what they actually do, suggesting that teachers can hold beliefs that appear contrary to their practice. It has been suggested that teachers' 'zones of enactment' (Spillane 1999), play an important role in whether they change the core of their practice when exposed to instructional reform. Zones of enactment 'refer to that space where reform initiatives are encountered by the world of practitioners and "practice"' (Spillane, 1999). While Spillane uses the construct to explain the implementation of instructional reform, it may also have relevance to better understanding the way teachers and their practice respond to a range of other drivers, including personal priorities from their own background.

The formation of the professional identity of a teacher is influenced in large part by what he/she brings to the pre-service teacher education programme (Clandinin & Connelly, 1996). Each individual has a wide range of prior life experiences and personal histories that shape his/her beliefs and expectations about teaching. It is accepted that beliefs about teaching held by people in pre-service teacher education programmes continue to shape their ideas and practices, and are powerful influences on practice (Clark & Petersen, 1986; DeLuca & Klinger, 2010; Kagan, 1992; Levin & He, 2008; Lortie, 1975; Pajares, 1998). These beliefs have a number of sources and characteristics, and by their own nature are linked in systems and difficult to change (Nespor, 1987). Researchers have described the process of growth as a teacher as having a 'multidimensional, idiosyncratic and context specific nature … which entails an interplay between different, and sometimes conflicting, perspectives, beliefs and practices, which are accompanied by development of the teachers' self' (Flores & Day, 2006, p. 219). As a result, teacher identity develops in ways that mirror the unique combination of culture, contexts and experiences that they possess.

Renwick and Vise (1993) found that the personal biographies of student teachers endured, and that their beliefs were relatively fixed through their teacher education programme. However Darling-Hammond (2006) identified several common elements within teacher education programmes which she argued prepare beginning teachers for engagement in ongoing learning and shifts in beliefs. There is evidence in the research on teacher identity development that while a teacher's professional identity is inextricably linked to their broader background and experiences, specific aspects of teacher education programmes do make a difference (Chong, Ling, and Chuan, 2011). A number of studies identify the need for beginning teachers to become aware of and make explicit their own beliefs as part of their teacher education, as this enables them to more easily critique and change their ideas (Buck & Trauth-Nare, 2009; Horwitz, 1985; Jones, 2010; Stuart & Thurlow, 2000). It is generally agreed that identity and teachers' personal lives are linked to teachers' competence and their ability to learn and develop (Day, 2002; Hargreaves & Goodson, 1996). Bell (2011) acknowledges the value of teachers' reflecting on, talking about, re-storying and making sense of their lived experiences to promote teacher professional and personal learning. The use of metacognition and reflection has been found to be important in this (Graham & Phelps, 2003). Personal histories have been shown to be one of a range of factors that influence student teachers' perceptions of themselves (Merseth, Sommer & Dickstein, 2008). Considering teacher identity development as a narrative,

journey (Merseth et al., 2008), or trajectory (Richmond, Jozwik, & Steele, 2011) has been found to be particularly useful in both understanding teacher identity development and in supporting teachers in their professional identity development.

An integral part of developing a teacher identity is the development of an identity as assessor (Adie, 2013; Cowie, Cooper & Ussher, 2014; Scarino, 2013; Willis, Adie & Klenowski, 2013). For teachers this takes time and is a complex process which includes the development of a knowledge and skill base as well as 'the development of a sophisticated, contextually-appropriate set of inter-related competencies' (Xu & Brown, 2016, p. 155). With respect to teachers' conceptions of assessment, it has been argued that 'emotions and relationships surrounding past learning and assessment contexts can influence current perceptions of assessment and learning in powerful ways' (Crossman, 2007, p. 314). In her studies Crossman analysed the discourse teachers used around assessment, and documented instances of teachers being influenced by past relationships with their own teachers in an ongoing way (Crossman, 2004, 2007). Links have been made to the work of LeDoux (1998) who argues that emotions can shape future action for people. Similarly Flores (2003) and Olsen (2008) emphasise the situated nature of teachers learning and professional knowledge, which is seen to be socially constructed by individuals through continuous interactions with others. These authors have found that beginning teachers draw on their experiences and prior knowledge and those of others in their community as they construct and reshape teacher knowledge and teacher identity.

Research into the development of teachers' assessment literacy, or the companion concept assessment capability (Absolum, Flockton, Hattie, Hipkins, & Reid, 2009; Ministry of Education, 2007, 2011) in New Zealand has found that teachers do hold beliefs, orientations and conceptions that affect their assessment practice (Edwards & Cooper, 2012; Brown, 2004; Eyers, 2014, Hill, Smith, Cowie, Gilmore & Gunn, 2013). As has been found elsewhere, New Zealand teachers respond to a range of experiences throughout their initial teacher education, developing their knowledge and capabilities. For example, the importance of practicum and assessment courses are reported as important factors in teacher development (Eyers, 2014). Importantly the special nature of the bicultural context in New Zealand means that cultural elements need to be considered in teachers' assessment literacy development, yet this is an area where little current research is available.

Bishop (2003), in his call for changing power relations in mainstream education in New Zealand, proposed that the use of *Kaupapa Māori* (indigenous Māori cultural aspirations, preferences and practices) theory and practice would address power imbalances, and that this 'will eventually benefit all students' (p. 223). Examples of this can be seen in work by Kent (1996), in which interviewing was examined as a tool to assess Māori students. Interviewing was found to be a successful and more accurate way to gather evidence of these students' knowledge, and was preferred by the students. Such practices in assessment can be seen as being culturally responsive, meeting the needs of students (Mahuika, Berryman, & Bishop, 2011). However the specific role of culture in assessment practice has been researched mostly with respect to the minority students being assessed (Luykx et al., 2007; Mahuika et al., 2011; Meyer & Crawford, 2011; Nelson-Barber & Trumbull, 2007), and little work has been published from the position of minority teachers and the effect of their cultural norms on pedagogical and assessment decisions they make in mainstream schools. Given the importance of culturally responsive pedagogy, there is a clear need for consideration of the way novice teachers' cultural backgrounds and

experiences influence their beliefs about assessment and consequently their practice and developing teacher identity.

In summary then, teacher identity and the development of this identity are complex constructs embedded in the array of experiences, interactions, thinking and responses of the individual teacher. This has been recognised for a long time but research in the area continues to build up a rich picture rather than offering simple explanations. The use of narrative approaches has been found to be particularly useful and recognises that the process is long term and situated. While accepting the holistic nature of teacher identity, this paper focuses on the relationship between two specific aspects, assessment literacy and cultural identity, in order to explore the complexity in more detail. There is little literature that addresses the impact of cultural beliefs and norms, particular those of indigenous teachers, on teachers' assessment ideas and practices. This case study brings together assessment, identity and culture to provide an 'apt illustration' (Mitchell, 1984, p. 237) of how these intersect and impact on a teacher's practice.

Research methodology and method

This paper presents a qualitative case study of how a pre-service and beginning secondary science teacher made meaning of his development as a teacher within the contexts he experienced. It is part of a larger study focussed on an investigation of the development of teachers' assessment literacy over time. Miles and Huberman (1994) discussed the strengths of qualitative data and remarked that 'Another feature of qualitative data is their *richness and holism*, with strong potential for revealing complexity; such data provide "thick descriptions" that are vivid, nested in a real context, and have a ring of truth that has strong impact on the reader' (p. 10). Case study was chosen for this research because of the way it allows a rich description of a specific instance to inform a wider theoretical perspective (Mitchell, 1984; Yin, 2014). It is particularly appropriate in this context because of the idiosyncratic nature of teachers' professional identity development. In the case presented here, the particular circumstances of the teacher involved help to clarify a previously obscure theoretical relationship between cultural identity and teacher assessment practice. A criticism of case study is the uniqueness of the case and hence the lack of generalisability due to the context-specific nature of the case (Creswell, 2007; Merriam, 1998). Case study does not seek to generalise to a wider population. In fact, the uniqueness of identity development in teachers precludes generalisation. The value of case study here is its ability to identify patterns and connections that may offer more powerful insights into specific aspects of teacher identity development and ways to support it. This can be seen as a 'telling' case (Mitchell, 1984, p. 239) because the particular details and circumstances of the case illuminate the previously unlit path that a number of Maori teachers take in New Zealand. The case allows readers to connect the fields of assessment and teacher identity with beliefs held firmly within a cultural worldview.

The teacher in this case study was involved throughout the year of his teacher education, and then over his first year of employment as a teacher. Data were collected through in-depth interviewing, the use of a questionnaire at three points of the research project and the collection of artefacts volunteered by the teacher over the course of the two years. The data helped build up an account of the teacher's beliefs, knowledge, understandings, and practices of teaching and assessment over time, in order to document his

views on developing identity as a teacher. Rather than standing at a distance to 'impartially' observe the teacher from afar, this research demanded a closeness that was achieved through a series of semi-structured interviews with the participant, allowing him to describe his own stories, beliefs, and hopes over time. His thoughts, intentions and actions had to be understood through his explanations and the articulation of his views.

Interviews with the teacher were conducted six times over a two-year period: at the beginning of his pre-service teacher education programme, after his first practicum (five months into the teacher education programme), before his second practicum (seven months into the teacher education programme), at the end of his programme, after six months of being employed as a teacher, and at the end of his first year of teaching. The interviews used a *past-present-future* structure similar to that used by Horn and colleagues in their investigations into novice teachers' motivation to learn and use various teaching strategies (Horn, Nolen, Ward, & Campbell, 2008; Nolen, Horn, Ward, & Childers, 2011; Nolen, Ward, & Horn, 2011). The interviews were semi-structured allowing the teacher freedom to explain what he thought was important. At each interview the participant was also encouraged to bring any artefacts he felt provided evidence of his teaching and assessment. These artefacts were discussed and analysed. This meant data were analysed using a constant comparative method (Merriam, 1998) and resulted in questions being developed which formed the basis for discussion in later interviews. Topics could be revisited and reviewed over the course of the study and this allowed the researcher to gain clarification of ideas with the teacher. The researcher (first author) in this study was very mindful of her role and possible influence in the gathering of data, being careful to consider both technical and social elements within the study. Reflexive decision-making was employed, and deliberate choices regarding each element of the study were made to provide rigour, as outlined by Ball (1990).

The model of assessment literacy developed by Abell and Siegel (2011) was used as an initial framework for the data analysis. This meant a focus on assessment values and principles, knowledge of assessment, and views of learning, was used to develop an initial coding scheme. Data analysis then involved an iterative process using three concurrent flows of activity: condensation, data display and drawing, and verifying conclusions (Miles, Huberman, & Saldana, 2014). As the analysis progressed, the coding scheme was revised inductively as new themes and codes emerged from the data. NVIVO 8 software was used to facilitate the assigning of codes and categories to the data during this process. In addition, a timeline of identified key events and experiences was derived from the teacher's transcripts. The teacher was able to confirm or correct and adjust all interpretations made in the study, and this was a feature especially during the final two interviews. The process also allowed the teacher to add explanatory comments. From these data, a description of his emerging professional identity was developed which is presented below in the findings (a term preferred in case study research (Yin, 2014)). To preserve his anonymity, the teacher is referred to hereafter as Wiremu.

Findings

Wiremu was an enthusiastic and thoughtful participant. He highlighted a broad range of key ideas that have been organised here into a brief narrative of what he sees as the formative experiences from his upbringing and education that have shaped his identity as a

teacher. His views of 'being a teacher' are examined, using his ideas on assessment to illustrate grappling with his professional teacher identity.

School and life experiences contributing to teacher identity

Wiremu comes from a large family, the youngest of five children and one of 87 cousins. His family are clearly important to him and he recounted a number of episodes relating to his immediate family and his extended family. Wiremu has an English father and a Māori mother, and is proud of his bicultural and bilingual heritage. He told many stories of times he spent with his father, highlighting his father's encouragement of his curiosity.

> Some of the beliefs are part of your character…. I definitely put it down to my early years, definitely how things were at school but also how things were at home…. My passion for curiosity was never squashed in my childhood and I feel that that is the reason why science has attracted me so much, because to me science is curiosity. [Interview 6]

Wiremu valued the ability to ask endless questions of his father when he was younger, and appreciated the patience his father showed him. As he reflected on this, Wiremu could see that the time spent doing things such as investigating rock pools on the shore with his father, provided the foundation for his interest in science. His own positive experiences with his father has led him to encourage his students to be curious and to ask questions. Wiremu feels that he can assess students by carefully listening to students' questions.

> Because I think half, at least half of science, is the enthusiasm and curiosity of wanting to ask a question…. but for me it's not just in the grades but in the enthusiasm for science. I think that is another way that you could just tacitly judge and assess them on…. Pretty fantastic to watch really. [Interview 1]

He attributed many of his beliefs about interpersonal relationships to the fact that he was one of the younger cousins in a family of 87 cousins, and he related these beliefs about relationships to the way he saw himself as a teacher. In particular, his ideas of fairness came from watching the interactions between his family members. He feels that he calls on his strong convictions about fairness when he considers his classroom assessment decisions.

> Personally I believe I am a very fair person. Growing up in a big family that word [fairness] gets thrown around a lot. What's fair? Who's being unfair? Who's good? Who's bad?…. And I've always hated hypocrisy. [Interview 1]

Wiremu explained that observing and listening to others is a key role of a good teacher and he attributes his listening skills and his negotiation skills to his ongoing family interactions. Wiremu talked about the role his family plays in shaping his beliefs, particularly about the value of all people, and the need for all people to play their part or have a role within large groups. For example, his role as 'little brother' was important at the recent birth of his sister's baby. In many ways he sees his students each having a range of valuable roles in his classes, and he sees his role as teacher within this context.

Wiremu considers himself bilingual and bicultural, speaking both New Zealand Māori (*te reo Māori*) and English. He became fluent in *te reo Māori* before his fluency in English language developed. He feels very comfortable in his knowledge and application of

tikanga Māori (Māori protocol) and *te ao Māori* (Māori worldview) and he holds to the values and beliefs underscored by these knowledges. The connection between language and culture is vital from his perspective, and in particular he honours eloquence of speech and oratory traditions which are a very important part of Māori culture. These contribute to his personal identity, and he explains that they underpin his work and his professional identity.

Wiremu attended a Māori-medium school (*kura kaupapa Māori*) for the first six years of his schooling and then moved to an English-medium school. His school experiences, particularly in the early years, have been particularly influential on his attitudes and beliefs about teaching and learning, and on his teaching identity as a teacher.

> I guess the biggest thing about me is that I was total immersion schooled until I was 11, so Year Seven was my first year in an English medium school. Before that all my learning, all my work, was done in te reo Māori. That has in my entire life had a big impact on me, on the way I am at school, and I found that there are a lot of things about [the English medium] school that didn't fit with me. For me they were more difficult than I wanted them to be, and the way I wanted to do things like speaking. I wanted to orally say what my answer would be. [Interview 1]

Through his early experiences in Māori-medium schooling he enjoyed the priority given to oral language and storytelling, to the memorisation of language and stories, and his ability to explore ideas and ask questions in *te reo Māori*. He said he felt free and confident to follow his own lines of inquiry. He explained struggles when he made the transition to an English-medium school, and was deemed a troubled and disruptive student, labelled as not having potential. He felt he did not fit into the school system, so he challenged school rules and questioned their methods of teaching. This included his voicing his preference to answer questions orally instead of having to complete written assessments. He valued being able to speak above being able to write, echoing the priority given to oratory in Māori culture. On reflection Wiremu felt that oral assessment would have given him a better chance to show his teachers what he knew.

It was the influence of one teacher in the English-medium school that opened doors for Wiremu. She recognised his potential and was able to provide him with a classroom structure that he could work within. She believed in his ability to learn, and in particular she still allowed him to pose questions and talk about his learning. Under her guidance Wiremu changed from an underperforming student labelled as a troublemaker to a positive student scoring well ahead of his year group in reading. Her influence on Wiremu was so profound that he decided he wanted to emulate what she had done for him by becoming a teacher.

> My teacher when I was 11, she changed my life. The way I viewed schooling, everything about it just changed. Like before then I'd been called disruptive … .. And so for me that was a justification for why I would be happy being a teacher. Just because if you can have that profound impact that happened to me…. man she had one of the most positive impacts on my life. That really affected my decision to be a teacher. [Interview 1]

This teacher put a number of rules and routines in place to help Wiremu and would meet with him after class to look at the questions he had written on a special notepad, talking these through with him. Her residual influence is still evident as he talks about himself as a teacher.

> That really affected how I was thinking about things, and when I was thinking about what I wanted to do for a job…And I thought about my teacher from Form one and I realised…. I'd never really reflected on how much she'd impacted me. I went through quite a profound time when I was thinking about how much worse off I could be personally, and then how much I owed her just because she was such a fantastic teacher. And I thought to myself, if you can get that once a year, then you are a successful person. [Interview 3]

He identified with her willingness to 'go the extra mile' in order to help students, and with the job satisfaction he felt he would gain through seeing the change in students he taught. Wiremu wanted to emulate this early model of a teacher he had experienced, and he held up this teacher as someone to aspire to.

Assessing as a teacher

Wiremu entered his pre-service teacher education programme with the strong convictions derived from his cultural and social heritage including views on student engagement and the professional role of teachers. He held particular views on school assessment and on what he thought his approach to assessing students would be. He linked these views directly to his own home life experiences and his experiences at school. He seemed firm in his convictions and very passionate as he talked about how he felt it best to assess students, emphasising oral assessment over written assessment. Early in his initial teacher education programme he made special mention of these convictions.

> Well, to this day what I think about most, when I think about assessment, are personal assessments. How I have been assessed over the course of my life. And again I say, I dislike the lack of oral assessment in schooling. Like why can you… Don't get me started! [Interview 1]

He admitted to being personally challenged by the university teacher education programme. Particularly challenging was his first practicum placement in a school with conservative views on learning and assessment. At this school he was given no opportunity to create assessment tasks, and was exposed to a very consistent yet inflexible system of summative assessment. He was confronted with the reality of having to conform to the school's assessment culture. Because of the large classes in the school he reported that he started accepting this practice as appropriate, given the conditions. During this time he talked about his ideas around assessment being 'in a big state of flux'.

> That's not saying we shouldn't think of ways to target children that would have a fairer assessment by not doing your standard written tests, but I guess the bottom line is that when it comes to, I don't want to say 'being a scholar', but … if you want to 'be a scholar' you have to be tested like scholars are tested. So if you are wanting to get through to the senior years at school, then you need to come to terms with how school assesses children. [Interview 2]

The reality of managing classroom assessment was emphasised by colleagues from a workload perspective at this first practicum school, and Wiremu said he understood the reasoning and subscribed to the value placed on formal written assessment. By the end of this practicum he seemed to have altered his views considerably. He wanted to identify with his colleagues at this school, and his early principles and strong beliefs about assessment seemed less central as his beliefs appeared to shift at least temporarily.

However his views of himself as a teacher-assessor appeared to rebound after his second practicum, which was in a school where he was given more freedom. At this school

he trialled the use of oral assessment for NCEA standards and he re-emphasised his views of the importance of using oral assessments, particular with speakers of *te reo Māori* in science classes. Again when talking about this he linked it to his own memories of struggling to express himself in written English when being assessed. However Wiremu admitted to finding it challenging to assess science orally when working with *te reo Māori* speakers, mostly because of vocabulary differences. For example, in biology form and function are treated separately in English whereas the terms used in *te reo Māori* incorporate both meanings within the same vocabulary item. This made it difficult for students to answer questions that discriminated between form and function. Nonetheless he felt that these difficulties were not insurmountable, and that using oral assessments led to increased validity in assessment.

> I still feel that oral assessment should be implemented a lot more, because I think that there are…I've always struggled to express myself properly in writing and I think that there are many students that are in the same boat. Often they are Māori students who have been in total immersion schools, and there is really no strong emphasis on written assessment in total immersion schools. [Interview 4]

Culturally, he felt that oral assessment suited Māori students in his classes better, whether it was completed in *te reo Māori* or English. He emphasised the importance of using oral language as an aspect of culturally responsive pedagogy to confirm to Māori students that the means by which knowledge is traditionally conveyed for Māori is valuable and valued. The role of oral language and storytelling is central in Māori culture so, in his opinion, both speaking and listening should be more highly valued.

> Historically this is how we transmit knowledge. So those who are in touch with their historical roots, those who know their tikanga Māori, know Māori protocols, and those who know te ao Māori, Māori worldviews, to them it is incredibly important that oral communication both speaking and listening is incorporated. [Interview 5]

Wiremu did not restrict the use of oral assessment to Māori students however. He believed that the prioritisation of oral language would be of benefit to all students as it would allow them to communicate what they had learned more naturally, and for some students this could mean much more positive outcomes with respect to assessment results and qualifications. He linked these beliefs to his own experience as a student and to the way he understood his role as a teacher. Thus he acknowledged the cultural aspect of his professional identity, and saw it as contributing to positive outcomes for all students.

As mentioned earlier Wiremu communicated a strong sense of the need for fairness in assessment, and saw part of his role was to make things fair for students. He related this back to his own observations of fairness from within his family setting. His first practicum experience emphasised the need for conformity across classes in school, and this did not sit comfortably with his beliefs about oral assessment. Conversely his second practicum experience allowed him to trial oral assessment, and this confirmed its value to him. Wiremu has come to the conclusion that although conformity may help with the manageability of assessment, it is not necessary and not fair. What is necessary in his opinion is for students to have the best chance possible to be able to demonstrate their learning, and in his mind this ensures fairness.

… it then takes a lot of making judgement calls about being more aware of more than just what's in front of your eyes, and so that will help me in the sense of being able to judge performance based on individuals, not comparing them to each other. I think I'll do that quite well, because in my life you know my younger cousins… and so I think that will be good in making me fair with when to be flexible with assessment, and knowing when not to be too strict, because I think I will be able to do that, have that sort of flexibility, because I don't think I'd make compromises on fairness. [Interview 1]

For Wiremu oral assessment is fairer for students as it increases validity by removing communication barriers for his students. This central belief about assessment was incorporated as part of his identity as a fair teacher.

Teacher identity – challenges now and hopes for the future

Wiremu appeared open to learning more about his role as a teacher, and over the course of his teacher education he often mentioned the complexity of his task of becoming and being a teacher. In his conversation Wiremu seemed realistic about the process of becoming a teacher, and mentioned the challenges and joys he thinks he will encounter. He reflects on his understanding that his growth as a teacher and his professional identity will take years to develop. He explained that he found his study of philosophy helpful in taking a longer term view of his development and his development of teacher identity.

Again philosophy has taught me that when you look really deep into things you realise there is a lot more that you don't know than what you do know… I should be aware that at the moment I am not very aware. So mostly it's taught me about how much of a gap in my knowledge I need to fill. [Interview 1]

And with respect to his beliefs he is aware of changes he is making over time, and he seems comfortable with this shifting identity in many respects.

And especially when it isn't something concrete, like it is a belief… Like I think this is how I am going to feel… Then I think 'Oh I changed my mind and what I believe in', and so those things are always quite personal. [Interview 3]

The views of others are important to Wiremu. On practicum he was surprised by the students' acceptance of him as a teacher before he himself felt he had really taken on the identity of a teacher.

And the other thing that kind of shocked me is that they expect you to be a teacher. You don't have to go out there and prove to them that you are a teacher. You don't have to earn their respect, you just have to never lose it. They expect you, a teacher, so when you walk and they don't say oh there's [Wiremu], let's see if he can turn into this teacher. They say oh, Mr [Smith] is here, he is a teacher.

Wiremu felt that because students accepted him as a teacher this helped him develop and accept his teacher identity as it was who he was seen to be.

One of Wiremu's strongly held beliefs is that his teaching should feature oral assessment, and as he looks to the future he knows this will provide an ongoing challenge for him. However he sees it somewhat as a defining feature of himself as a teacher. He is realistic about the fact that his hopes to prioritise oral assessment do not fit with the standard practice of using written assessments to assess science in mainstream English-medium schools in New Zealand, particularly for NCEA. He accepts that for many students written

assessments are sufficient, but he worries about students on 'the margins, the fringes, and what happens to those that don't fit' [Interview 6]. He knows that within the NCEA system there is flexibility to develop assessment tasks that incorporate oral assessment, therefore he is committed to investigating ways that will allow him to do this, although he concedes that this means he has to work within the system rather than rejecting it outright.

> Experiencing the reality of things was different than my hypothetical expectations, so realising you can't just be a bit of an anarchist saying 'oh there's nothing going to happen'… the one way you can help is to get in and get involved rather than just sitting back saying 'that shouldn't be done that way'. Working in the system… because the attitude I brought was a bit too… I wouldn't say anti- the system, but I wasn't really keen to play ball. [Interview 6]

At the end of his teacher education year Wiremu was convinced that his earlier beliefs regarding the usefulness of oral assessment were still worth pursuing. He identifies the difficulties for students moving from Māori-medium to English-medium schools where there is a strong emphasis on written assessment in English. For these students in particular he wants to make a difference. Having tried using *te reo Māori* when assessing biology he understands the challenges with vocabulary particularly the nature of form and function terminology, and the place of Māori worldview in science. He has taken time to consider Māori worldview and the place of storytelling and traditional knowledge in teaching science as it is described in the NZC. For some students he thinks it is culturally respectful to give them options about how they would like to be assessed, and he would like to promote this.

Wiremu did trial the use of oral summative assessment for formal assessment in his first year of teaching, but only with small senior classes, and he accepted that the logistics of using oral assessment with larger classes is more challenging. However he explained that he is thinking of ways to facilitate flexibility in his approach to assessment, possibly through giving students the choice to use audio digital recording instead of written responses. In a class in which he trialled this, 50% of the students opted for recorded oral assessment, and he felt there would be a similar uptake in other classes he taught. He does not want to place barriers in the way for students, and he feels that for many of his students the use of written assessment does provide a barrier.

During his first year of teaching Wiremu has felt an obligation to raise the issue of the benefits of using oral assessment in fora such as department meetings, literacy group meetings and staff meetings in his current school. He has received a mixed response from staff. He is resolute in keeping it on the agenda, and he can see that teachers realise he is serious, but are unsure what their responses should be.

> What they have seen already instigated in schools [regarding oral assessment] is very little. I bring this up as often as I can with teachers, and most of them just deflect it as unimportant. Those who actually see you are serious about it all of a sudden think, 'well actually because he is so serious about this I don't know of what answers to give'. And you get very mixed feedback depending on the curriculum they teach. [Interview 6]

Wiremu said that he feels some teachers and schools are putting up barriers where they do not exist, blowing things out of proportion or limiting what is possible without trying out alternative methods of assessment. He feels they just wish to retain the status quo. He admits that using oral assessment can cause more work for teachers but feels this

should not be the deciding factor in its use, arguing that teachers can mark audio files at home in the same way as they currently mark written assignments.

> Yes I do, and the reason I say that is if written assessment can be applied to all curriculum, why can't oral assessment … be applied to all curriculum? I feel that the limitations on things are often blown out of proportion at the start of things. I mean just go in and see what the limitations are before you say they are too big. [Interview 6]

He also communicated a feeling of personal responsibility to grow professionally in his knowledge and in his practical teaching ability, in order to be able to advance his agenda.

> Sometimes you need to take things on your own shoulders and get things done. I'm very interested to see what I can do about this, but at the same time I need to do things the right way. I need to take my time so that I don't focus too much on things that don't give me experience quickly. Right now while I'm new I'm concentrating on things that can give me lots of experience quickly, and then the things that will take a lot of time and effort other things I can think about when I am confident in my teaching. [Interview 6]

Wiremu regards the promotion and use of oral assessment as an issue that is worth pursuing. He tracks this passion back to his cultural background and own his educational experiences, as well as his values around fairness, which have come from his family experiences. However he links these values to his concern for his current students. It is clear in his discussions that this commitment comes from belief held quite centrally within his developing teacher identity.

Discussion and implications

As discussed earlier, the value of case study research lies in its ability to use the particular circumstances of a case to inform previously obscure theoretical relationships (Mitchell, 1984). Wiremu's story highlights the complexity and idiosyncratic nature of teacher identity development. There are four particular aspects of his experience and thinking that we believe contribute to a clearer theoretical base for understanding teacher identity development and that merit further discussion.

Theorising teacher professional identity using sociocultural theory

Theorising teacher professional identity from the perspective of sociocultural theory highlights the influence of social interaction and participation and allows us to characterise its development in terms of distributed cognition and embodied cognition, rather than simply as cognitive change (Hickey & Anderson, 2007). In Wiremu's case, the development of his understanding of teaching and assessment could not be adequately explained as a purely cognitive process. As he reflected on each new experience, he clearly made sense of it by reference to his previous experiences and relationships and to his existing beliefs including his indigenous worldview. In particular his early school experience of learning and being assessed strongly coloured his views about assessment. His recollections of key people and events were his guides as he made decisions about his teaching approach and practice and about how he wanted to be seen as a teacher. We would have been unable to understand Wiremu's teaching without adopting a socio-cultural perspective

that required us to consider his mind, his action, and his context (Bell, 2011), and this was clearly how he was making sense of it.

A sociocultural view recognises the situated nature of learning and the role of context. This was particularly evident when we compare Wiremu's two practicum experiences. In each school there was a distinct assessment culture with routines and protocols that 'shape peoples' understandings about what is important to learn, what learning is and who learners are' (Moss, Pullin, Gee, Haertel, & Young, 2008, p. 9). For Wiremu, while both schools offered quite different but valuable learning, they were interpreted through the lens of his previous experience and beliefs. This provided a consistent base to his thinking even when raising questions for him and led him to a much richer view of assessment by the time of his final interview. He admitted that his first practicum experience 'jarred' him as he felt he was persuaded to accept as true things that went against his core beliefs. However his later response illustrates the powerful influence of centrally held beliefs (Nespor, 1987), as he returned to his original beliefs about assessment later in the year once he had some time away from the first practicum school. Similar to the findings of Renwick and Vise (1993) Wiremu's beliefs were seen to be relatively fixed during his teacher education and his professional identity appeared to be shaped by experiences and people he had encountered earlier in his life.

The relationship between cultural identity and teacher identity

A particularly prominent finding in this study was the impact of cultural identity on professional identity. Battey and Franke (2008) discuss the way teachers think about themselves in relation to particular context and history, for example, what it means to be a 'White' or 'African-American' teacher. Similar to what was evident in their research, the teacher in this study was seen to develop his professional identity as part of social practice, not in isolation. The cultural and historical experiences valued by Wiremu were seen to open and constrain how he navigated his everyday practice, and therefore how this identity developed. These experiences could be seen as shaping his zone of enactment (Spillane, 1999). As observed by Lave (1996) 'crafting identities is a social process, and becoming more knowledgeably skilled is an aspect of participation in social practice, who you are becoming shapes crucially and fundamentally what you know' (p. 157). Wiremu's strong beliefs based on a cultural prioritisation of oral language meant that he used this lens when interacting and participating with others in teacher education and his first school. In this way his professional identity included a deference to Māori ways of interacting.

Assessment practice in the context of teacher identity

International research shows how teachers' conceptions of assessment vary depending on their cultural background (Brown, Lake & Matters, 2011; Hamilton et al., 2007; Remesal, 2011). In New Zealand, Sun (2011) investigated the challenges for Chinese teachers with their cultural differences being shown to enable differing perspectives on teaching and learning. Biggs (2010) and Seah (2002) also documented the impact of cultural influences on immigrant teachers. In this study Wiremu attributes his views on assessment in most part to his cultural background. The importance and value of oratory expression in the Māori culture was enacted in the system he experienced for his first six years at school

and in his home and community. His perceptions are that this led directly to his beliefs about the importance of oral assessment, and his preference to use oral assessment to assess students at school. Interestingly he applied this belief to all students, not just Māori students. Given that oral summative assessment is not the norm in New Zealand schools, the distinction in beliefs and consequently professional identity for this teacher suggests a need to pay more attention to the cultural background, experiences, and beliefs of pre-service and inservice teachers as these will strongly influence their subsequent views and practice. Providing opportunities to tell the stories of their formative experiences together with reflecting on the impact of them are important practical aspects of this (Richmond et al., 2011; Graham and Phelps, 2003).

New Zealand's school assessment landscape allows teachers considerable freedom to design assessment tasks that suit their students. In senior secondary science, for example, the internally assessed unit standards and achievement standards do not limit the assessment types or the methods by which students can communicate their knowledge or activity. This means that assessment tasks which include oral assessment are acceptable to the New Zealand Qualification Authority (NZQA) as long as the usual conditions of validity, reliability and authenticity were met. It is important that teachers assess students using a range of sources of evidence, e.g. testing, examinations, observations, performance of tasks, portfolio development, questioning (Clarke, Timperley, & Hattie, 2003; Davies & Hill, 2009). Wiremu's proposal of the increased use of oral assessments would therefore fit very comfortably into the assessment parameters permitted by NZQA even though it may not sit comfortably with the assessment culture existing within individual schools.

Time as a dimension of teacher identity

Wiremu highlighted both a strongly historical dimension to his understanding of his professional identity as a teacher and a future focused one. His preferences in his assessment practice are clearly affected by the beliefs developed through his personal history and cultural background. Wiremu acknowledges that many of his early life and family experiences coloured his approach and priorities in teaching and learning, and particularly his assessment practice. He ascribes his growth as a teacher to the combination of his own 'mix' of background and experience with his more recent experiences. This is consistent with research reported elsewhere (Flores and Day, 2006). In expressing reasons for his views and beliefs he commonly referred to a formative experience from his upbringing.

Wiremu showed willingness to provide future professional leadership, as well as a feeling of personal obligation to promote the use of oral assessment. This suggests at some level his professional identity included a 'call to leadership', as is the case for many Māori teachers who work in mainstream English-medium schools. In this way he may be described as an activist professional as he 'regards his social relationships and pedagogical practices within and outside of schools' (Sachs, 2000, p. 92) in order to effect change in school culture. His second practicum was influential in developing his sense of empowerment to effect change as it provided a professionally and socially supportive environment within which he could develop his thinking and trial practices that align with his beliefs. Wiremu acknowledges however that there are challenges in what he proposes to colleagues, although he argues that these are worth facing. In particular secondary teachers in New Zealand have been found to feel underprepared or stressed by NCEA assessment

(Edwards, 2013; Kane & Fontaine, 2008), making them less likely to consider what they perceive as potentially more time consuming. This makes them more likely to resist change (Wylie, 2013). Wiremu's determination to act as a professional leader in this area, particularly in the current educational climate, highlights his strong commitment to beliefs about teaching and assessment. It also indicates that his view of his professional identity integrated a historical, current, and future focus.

This study focusses on just one case, and while we cannot generalise, there are consistencies with results reported elsewhere. The development of teacher identity is seen to be a gradual process and is affected by a range of factors. However Wiremu's case is a telling case, in that it makes connections between teacher identity, cultural background (and beliefs) and assessment practice. The effect of teacher and cultural identity for Wiremu is that his orientation or views on assessment prioritise oral assessment, mirroring the oral traditions of Māori. Wiremu explains that this very central belief will continue to impact on his practice and on his aspirations for other teachers.

There are several issues that would appear to merit further investigation as they have implications for the development of teacher identity during and soon after initial teacher education. These include the way cultural influences shaped the early home, community, and school life of this person and thereby influenced their beliefs about teaching and learning and, in this case assessment. In this case the strength of these beliefs appeared to determine how the teacher made sense of what they were learning in their pre-service teacher education and as a result appeared more influential on their practice. The opportunity to question his thinking and to test his ideas in a supportive professional environment were particularly important in empowering Wiremu with a sense of agency.

Conclusion

Wiremu's story is interesting in its own right. The individual stories, histories and experiences he relates show how his beliefs and priorities have been shaped as he completed his pre-service teacher education programme and started working in his first school. However, his story also offers useful illumination of aspects of theorising teacher identity development. It highlights the uniqueness of the set of experiences, interactions, and thinking that contribute to each teacher's beliefs and responses to new ideas and situations. While this may seem self-evident, it reinforces the need for processes supporting teacher identity development to be flexible and individually oriented. As Brookhart and Freeman (1992) suggest, it is important that teachers are not seen as an undifferentiated group, but that their various beliefs and norms are acknowledged. Helping teachers to become aware of and be able to reflect on what they believe about assessment and learning will be of benefit (Stuart & Thurlow, 2000), particularly when these views are dissonant with dominant views. Enabling teachers to find ways to align their views with their practice would also be important. The key role of cultural identity and experience in shaping teacher identity was also highlighted. New Zealand pre-service teachers come from a range of cultures bringing particular cultural beliefs and priorities to their teacher education and teaching that may differ from what is accepted practice in New Zealand English-medium schools. In particular the beliefs of pre-service teachers who have been through Māori-medium and English-medium schools may differ. Māori teachers bring a distinct worldview that may differ from the majority of New Zealand teachers. However, a

diverse population is not only a feature of New Zealand. Many countries now have a very diverse population base, and teachers from a range of backgrounds are involved in teacher education.

A sociocultural theoretical lens provided useful insight into Wiremu's development because it focused attention on understanding the impact of interaction and experience in a particular social and cultural context. As already noted, Wiremu's case provided a telling example of the importance of considering culture in teacher identity development. It also exemplified the usefulness of considering a specific aspect of teacher identity, in this case assessment beliefs and practice, while maintaining a holistic view of teacher identity. There are links here to Spillane's construct of zones of enactment which may merit further investigation. A further issue raised is the importance of time as an integral part of teacher identity. Wiremu's case highlighted history as key to understanding his teacher identity at an given point in time. It also suggested a future-focused aspect to teacher identity with respect to aspirations and perceptions of ongoing development.

The case presented here offers useful perspective on the concept of teacher identity and suggests some important considerations for pre-service teacher education providers and schools in supporting teachers as they develop professional identities and begin their careers.

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No potential conflict of interest was reported by the authors.

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