RESEARCH ARTICLE

Teacher agency in curriculum reform: the role of assessment in enabling and constraining primary teachers' agency

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Abstract

Demands of a globalised knowledge economy and drive in accountability and performativity systems have seen top-down approaches to curriculum innovation dominate education reform efforts. Standards-based policies, prescribed curricula and standardised student assessment consistently challenge teachers' agency. Although there is a growing interest in the role of teachers' agency in curriculum reform contexts, limitations exist in the range of contexts explored, particularly those involving primary schools and dynamic top-down, bottom-up curriculum reform efforts. This article draws on a case study of an Australian primary school engaging in a top-down, bottom-up approach to curriculum reform from a teacher-researcher perspective. Framed within an ecological conceptualisation of teachers' agency (Priestley et al. 2015), this article explores primary teachers' reported experiences of agency and identifies potential enablers and constraints to agency in top-down, bottom-up curriculum reforms. Factors associated with assessment emerge as enablers and constraints to teachers' agency in curriculum planning and teaching. Implications regarding the use of top-down, system-developed assessment and teachers' assessment literacy exist for teachers, school leaders and governing authorities.

Keywords Assessment · Curriculum reform · Teacher agency · School-based curriculum development

Introduction

Australia and other Western nations face continued renewal and innovation through reforms in curriculum, pedagogy and assessment. Large-scale curriculum reforms in the United States, England and Australia exist as examples, with these nations often favouring top-down approaches to reform in an effort to respond to pressures associated with improving the quality and accountability of their education systems (Henderson and Zajda 2015; Rizvi and Lingard 2010). The introduction of a core and prescribed curriculum, together with standardised assessment, national testing and student benchmarking indicates a continued demand for guaranteed, effective teaching (Sahlberg 2011). Top-down approaches to curriculum reform often fail to foster ownership and commitment from those that matter most, teachers and school leaders. As a result, teachers' agency is constrained and teachers' professional identities threatened (Day 2017). Furthermore, top-

down approaches result in the centralisation of curriculum practices, and demand for more accountable and standardised forms of student assessment (Klenowski and Carter 2016). As such, teachers are denied opportunities to develop their assessment literacy (Baird and Hopfenbeck 2016).

Although top-down approaches to curriculum reform are increasingly viewed as accepted educational orthodoxy in many nations, others are attempting to combine both top-down and bottom-up approaches to curriculum reform efforts (Priestley et al. 2014; Ramberg 2014). Curriculum reforms in Finland, Singapore, Scotland and New Zealand exist as examples, where the local level capacity of schools and teachers in driving curriculum innovation is balanced against support from national and state-level directives and initiatives. Without the need for prescriptive control, school-based curriculum development practices drive these reforms, helping to promote and acknowledge teachers' agency (Ramberg 2014). However, careful consideration is required on the levels of teacher autonomy in such reforms. Too higher levels of teacher autonomy can risk causing confusion and ambiguity in curriculum decision-making (Dee et al. 2002; Kennedy 2013).

Despite these challenges, there is a growing interest in top-down, bottom-up approaches to curriculum reform that counter the centralisation of teachers' work and promote teachers'

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agency. Top-down curriculum reforms in secondary schools and vocational education reforms across Europe and Asia dominate current literature on teachers' agency (Priestley 2011; Priestley et al. 2012; Tan 2016; Vahasantanen 2015). Whilst a significant body of research exists, little attention has been placed on examining teachers' agency in primary school settings, in case sites outside Europe and Asia, or from alternative researcher perspectives. In recognition of these gaps, this study explored teachers' agency in an Australian, state-funded primary school. The school, where I worked as a teacher at the time of the study, provided an opportunity to present a teacher-researcher (Cochran-Smith and Lytle 2009) perspective on teachers' agency. From this perspective, I examined primary school teachers' experiences of agency in a top-down, bottom-up curriculum reform. Teachers engaged in school-based curriculum development practices to drive the reform process, and were supported by top-down system level initiatives including the Australian Curriculum and Queensland Department of Education's *School Improvement Hierarchy* (Department of Education and Training 2016).

Using a single, embedded case study design (Yin 2009), six primary teachers' experiences of agency in a planning session with colleagues, and in classrooms were examined, with potential enablers and constraints identified. Priestley et al.'s (2015) ecological conceptualisation of agency formed the theoretical framework of the study. Through hybrid thematic analysis (Braun and Clarke 2006), three significant themes emerged in relation to teachers' agency in a top-down, bottom-up curriculum reform context including 'assessment', 'time' and 'collaboration'. In this article, I draw on the theme of 'assessment', outlining the enabling and constraining nature of assessment on primary teachers' work in this reform effort. I argue that top-down system-developed summative assessment tasks significantly constrain teachers' agency, whilst strengthening teachers' assessment literacy may enhance teachers' agency in future top-down, bottom-up curriculum reforms.

I begin by outlining common priorities evident across contemporary curriculum reform movements. I then provide greater detail on the curriculum context of Queensland, Australia, and briefly describe school-based curriculum development practices. Salient concepts related to professional agency and key scholarship on teachers' professional agency in reform contexts are outlined before the case study design and key findings related to 'assessment' are discussed.

Curriculum reform

Large-scale curriculum innovations vary in the reform strategies employed. These reform strategies often sit on a continuum of approaches, ranging from top-down approaches where schools merely implement centrally initiated and controlled innovations, to bottom-up approaches that position schools and teachers as key agents in a reform process (Fullan 2016). It is argued that a combination of both top-down and bottom-up approaches to curriculum reform be employed, resulting in more sustainable change in schools and balance between centralised forms of quality assurance and greater levels of school autonomy (Fullan 2016; Schleicher 2008).

Recent shifts in curriculum policy, particularly in Finland, Scotland, Singapore, New Zealand and England, have signalled a preference in top-down, bottom-up approaches to curriculum reform that value teacher professionalism (Priestley et al. 2014; Ramberg 2014). Scotland's *Curriculum for Excellence*, England's 2014 National Curriculum and Singapore's *Teach Less, Learn More* policies all demonstrate education initiatives that emphasise local flexibility in schools and the role of teachers as active developers of the curriculum (Lim-Ratnam et al. 2016; Priestley and Drew 2016). Teachers in reforms like these often exercise their agency through school-based curriculum development opportunities (Leander and Osborne 2008). However, such approaches are not without challenges. Scotland's *Curriculum for Excellence* project, although a movement away from a top-down system-controlled approach, has resulted in reports of teacher anxiety, variability in curriculum implementation approaches, and growing tension between policy and practice (Priestley et al. 2014). Whilst England's 2014 National Curriculum demonstrates a shift from past models of over-prescription, mandated assessment, and accountability imperatives, teachers continue to report ongoing difficulty in determining the scope of their autonomy in the new curriculum (Greany and Waterhouse 2016). Additionally, Singapore's *Teach Less Learn More* policies have positioned teachers as critical stakeholders in reform but such innovations have occurred against backdrop of concerning social and educational inequalities (Tan 2016). I note, however, that from 2018, educational policy efforts in Singapore aim to address these social inequalities across the Singaporean education system (Ministry of Education 2018).

Large-scale curriculum reform in Australia

Australia's education system is bound by a complicated set of responsibilities and funding arrangements. Whilst a federal system exists, in regard to a national curriculum, states and territories continue to exercise their constitutional authority in managing and funding their public education systems. Prior to the introduction of the Australian Curriculum, each state and territory maintained separate curriculum identities (Reid 2005). A gradual shift over three decades saw matters concerning curriculum move from state-level control to the Federal Government. The *Hobart Declaration on Schooling and Agreed National Goals for Schooling in Australia* (MCEETYA 1989) and the *Adelaide Declaration of*

National Goals for Schooling in the Twenty-First Century (MCEETYA 1999) first saw historical commitments made in establishing national collaboration and cooperation regarding education. The *Melbourne Declaration on Educational Goals for Young Australians* (MCEETYA 2008) that followed saw states and territories commit to and approve the development of a national curriculum. The implementation of the Australian Curriculum commenced from 2012 through a staggered roll out of key learning areas (ACARA 2012). Each state and territory has maintained responsibility in managing the implementation of the curriculum across schools (Mills and McGregor 2016).

Curriculum context in Queensland, Australia

Queensland is a state well known for school-based curriculum development and other curriculum reform efforts prior to the implementation of the Australian Curriculum. Notably, the *New Basics* trial in 2001 approached content knowledge and pedagogical approaches that reflected twenty-first century skills, and the importance of higher-order thinking (Luke 2000). Student assessment, referred to as *Rich Tasks*, required solutions to real-world problems, and saw teachers engage in collaborative moderation practices that strengthened their assessment literacy (Mills and McGregor 2016). However, a national reform agenda, high costs associated with implementation, and a continued mandate towards a national curriculum prevented the full realisation of *New Basics* across Queensland state schools (Lingard and McGregor 2013). *Essential Learnings* (Queensland Studies Authority 2007) followed with a return to traditional disciplinary learning areas, and a renewed focus on enhancing curriculum and assessment practices from preschool to Year 10. *Essential Learnings* sought to strengthen school-based assessment practices, especially in primary and lower secondary settings. Again, continued pressure from a national reform agenda prevented *Essential Learnings* from being embedded across all Queensland school syllabus documents (Lingard and McGregor 2013).

The implementation of the Australian Curriculum followed, with Queensland adopting all learning areas of the new curriculum as soon as they became publicly available. This was in contrast to the more measured approaches taken by other states (Mills and McGregor 2016). Teachers in state-funded schools were supported in such a fast uptake of multiple learning areas through the introduction of the *Curriculum into the Classroom* or *C2C* resource (Education Queensland 2013). The *C2C* represents a significant shift away from past school curriculum planning practices in Queensland, with teachers provided with system-developed unit plans, prescriptive lesson plans, student resources and assessment tasks. The *C2C* remains in use across Queensland state schools, raising concerns on the impact of these materials on teachers'

professionalism in curriculum and assessment work (Woods et al. 2014). Quality school-based assessment practices have long characterised the senior schooling domain in Queensland. Senior secondary school teachers developed assessment plans based on senior school syllabuses, maintaining quality assurance through statewide moderation practices. However, the relevance and application of these practices are now uncertain, with state policy changes in 2019 placing constraints on school-based assessment in senior secondary with the introduction of externally graded, standardised examinations used to attribute student achievement (QCAA 2018).

Although *C2C* resources continue to be used and changes are evident to senior secondary school student assessment practices, recent top-down initiatives, including the Queensland Department of Education's *School Improvement Hierarchy* (DET 2016), may indicate a slow and subtle movement back towards quality school-based curriculum development practices in Queensland. The hierarchy guides school improvement plans, encouraging school leaders and teachers to strengthen their curriculum and assessment planning practices with greater consideration given to local school context and individual student needs.

School-based curriculum development

School-based curriculum development practices in Finland, Singapore, Scotland and New Zealand position teachers as critical stakeholders in curriculum development and implementation (Lim-Ratnam et al. 2016; Ministry of Education 2017; Priestley and Drew 2016; Sinnema and Aitken 2013). Schools in these nations have decentralised curriculum decision-making, providing greater flexibility to their teachers in making significant decisions regarding curriculum content, organisation and design. Although a school-centred approach, central system initiatives and directives are not ignored, existing as support mechanisms for schools to balance a centralised curriculum model with higher levels of teacher professionalism (Sinnema and Aitken 2013). Although school-based curriculum development acknowledges teachers' professional knowledge and judgement, such autonomy in curriculum making presupposes that all schools have expertise and skills in quality curriculum development. Therefore, the challenge of localising national curriculum should not be underestimated, with careful consideration required on the skillsets required by teachers to engage in high quality and sustainable curriculum practices (Kennedy 2013).

Scotland's *Curriculum for Excellence* project provides examples of such challenges. Minimal changes to established beliefs and, existing curriculum practices have resulted in a superficial implementation of the new curriculum in some schools (Priestley et al. 2014). In reality, sustainable school-based curriculum development requires a deep

reconceptualisation of the nature of teaching and learning, together with changes made to practices at all levels of an education system (Wong and Lai 2007). Whilst policy efforts in nations like Finland, Scotland and New Zealand signal preferences towards school-based curriculum development, these efforts continue against a backdrop of increasing accountability and performativity measures on schools and teachers. Opportunities for teachers' agency in school-based curriculum development practices are constrained by the rise of technical and specified curriculum knowledge, standardised assessment, high-stakes testing, and the datafication of teaching and learning discussions (Buchanan 2014; Lingard 2011; Winter 2017). The challenge remains for systems to find a balance between central control that supports schools, and greater levels of teacher agency in curriculum and assessment practices (Schleicher 2008).

Teachers' agency

Teachers' agency describes the notion that teachers, as professionals, have 'the power to act, to affect matters, to make decisions and choices, and take stances' (Vahasantanen 2015, p.2). Research into human agency and its role in various professional and personal contexts has produced varied and differing stances. This study draws on previous studies in human agency by Emirbayer and Mische (1998) and Biesta and Tedder (2007). I also outline Priestley et al.'s (2015) ecological model of teacher agency in this section as it forms the theoretical framework of the study.

Seminal work by Emirbayer and Mische (1998) saw human agency as the engagement of an actor in different environments, with the interplay of habit, imagination and judgement transforming responses to problematic experiences. In this way, agency is achieved in a temporal-relational space, as a choral triad of elements, where actors react to existing patterns of thought, find new ways of expressing ideas, and generate future trajectories of action. Therefore, agency can be conceived in a temporal, three-dimensional fashion involving influences from the past, the iterational dimension, active engagement with the present, the practical-evaluative dimension, and projections of future, the projective dimension. These dimensions interact with each other, often varying in the way they each contribute to the overall achievement of agency (Emirbayer and Mische 1998). Biesta and Tedder (2007) built on this temporal-relational perspective, conceiving agency as not something that is possessed, but rather something that can be achieved. The authors argue that more attention be placed on the way a context interacts with an individual, rather than how the individual acts alone in a context. As a result, agency is achieved through the interplay of personal capacity, together with the resources, affordances and constraints of the environment (Biesta and Tedder 2007).

Priestley et al. (2015) draw on Emirbayer and Mische (1998) and Biesta and Tedder (2007) to present an ecological conceptualisation of teacher agency. Similar to Biesta and Tedder (2007), the authors dispute the view of agency as the sole result of personal attributes or variability in social action. Rather, they argue that agency is dependent on the engagement of the teacher within their context of action. Their model highlights that teachers' agency is always influenced by past experiences, orientated towards the future by some combination of objectives and aspirations, and enacted in present-day, concrete situations (Priestley et al. 2015). Teachers' agency is achieved through the interplay between the iterational, practical-evaluative and projective dimensions (Emirbayer and Mische 1998). First, the iterational dimension draws attention to how agency is influenced by personal capacity, together with teachers' knowledge and skills, and existing professional and personal beliefs. The authors emphasise that a teacher's professional education together with prior experiences in schools, past dialogue with colleagues, exposure to school culture, and professional development opportunities contribute to the iterational dimension of agency (Priestley et al. 2015).

Second, the practical-evaluative dimension shapes present-day decision-making, where an individual teacher recurrently faces both an analysis of possible action and perceptions of unacceptable risk. As agency is realised in concrete situations, it can be supported, and constrained, by cultural, structural and material factors (Priestley et al. 2015). Cultural factors refer to the beliefs teachers hold, and the vocabulary and discourse used to articulate these beliefs, intentions, expectations and goals within the school. Structural factors refer to social structures such as social and professional relationships, wider teacher and school networks, and the influence of roles, power and trust (Priestley et al. 2015). Strong relational conditions, particularly a collaborative school culture, are required to support teachers' agency (Priestley et al. 2015). Material factors relate to the physical environment, as agency is always enacted within a concrete situation. Structures in the built environment, together with the availability and use of physical resources by teachers can shape experiences of agency (Priestley et al. 2015).

Finally, the projective dimension of teachers' agency refers to the short-term and long-term aspirations teachers have for their work (Priestley et al. 2015). Teachers' aspirations can take on different forms, ranging from positive, such as aspirations for high student achievement or the support of policy intentions, to reserved. For example, teachers may have narrow aspirations that run counter to current policy in order to keep existing practices in a desired or comfortable state (Priestley et al. 2015). Whatever the form these aspirations take, they largely develop from teachers' past professional experiences. Priestley et al.'s (2015) ecological model encourages us to better understand the dynamic interplay between these dimensions, and the role of school ecologies in shaping teachers' agency.

Professional agency and school reform

The degree of agency teachers experience in their own work influences their response to change, and the extent to which they reshape their own professional practices (Ketelaar et al. 2012; Pyhalto et al. 2012; Vahasantanen and Billett 2008). The agency of teachers in varied reform contexts has been explored in countries such as Finland, Estonia, Germany, Norway and China. Teachers' agency in Finnish vocational school reforms was influenced by prior work experiences, together with built structures in the school environment (Vahasantanen 2015). Similarly, in a comparative study of secondary school reform in Finland, Estonia and Germany, teachers' agency was highly dependent on the personal, social and physical preconditions of teacher competencies, the built environment and physical resourcing available in the school (Erss et al. 2016). Additionally, Ramberg (2014) and Tan (2016) found that teacher agency was closely related to the conditions of the school, namely school leadership, opportunities for collaboration between teachers, and school protocols relating to curriculum planning practices. These findings provide insight into the important role context plays in shaping teachers' agency, and provide impetus for further study into the conditions that enable or constrain teachers' agency in other school reform efforts.

Research design

This study provides an Australian perspective on primary school teachers' agency in a top-down, bottom-up curriculum reform. In doing so, the study considered the following research questions:

- *How do teachers experience professional agency as they engage in a top-down, bottom-up curriculum reform*?
- *What are the enablers and constraints to professional agency that emerge from teachers' reported experiences in a top-down, bottom-up curriculum reform*?

In this article, I draw on significant findings related to the second research question of this larger study, highlighting the enabling and constraining nature of assessment on teachers' experiences of professional agency in a context involving school-based curriculum development practices. In the following section, I outline the case study design of this study, describing the school context and the school-based curriculum reform approach taken in the school.

Case study—Leafy Hills Primary School

A single, embedded case study design (Yin 2009) examined teachers' reported experiences over 10 weeks at a state-funded primary school in Queensland, Australia. Details regarding the school's context and reform process are detailed in the following sections. Although the school was a single case, six classroom teachers represented sub-units within the single case that facilitated more extensive analysis. The six teachers had varied levels of teaching experience, not all worked on the same year level, and were representative of a wide range of classroom year levels. For the purposes of protecting participant anonymity, the teachers' individual profiles are not detailed in this article. Rather, they are represented as a collective group, with pseudonyms used for teacher names when required.

Leafy Hills Primary School

Leafy Hills Primary School[1] is a large metropolitan, state-funded primary school offering Preparatory to Year 6 education in Brisbane, Queensland. The school community is described as of high socioeconomic status. Leafy Hills has a large multicultural community, with a majority of the student population born in a country other than Australia. The school has a large teaching and non-teaching staff body, and a leadership team including the Principal, three Deputy Principals, one Business Manager, and three Heads of Curriculum. Due to a large student enrolment, each year level consisted of a minimum of three classes.

School-based curriculum reform context

The curriculum reform context of the school at the time of the study drew on a combination of both top-down and bottom-up approaches to reform (Fullan 2016). A prior audit of the school identified areas for improvement, especially in the domain of systematic curriculum delivery as outlined in the *School Improvement Hierarchy* (DET 2016), a hierarchy utilised by the Queensland Government to support school improvement in state-funded primary and secondary schools. Recommendations from this audit prompted the school to strengthen their curriculum planning processes and move away from the sole use of the *C2C* (Education Queensland 2013). The school leadership team engaged their teachers in school-based curriculum development practices to drive the reform process.

Figure 1 outlines the school-based curriculum development structures and processes undertaken at the school site. The school Principal, alongside the Heads of Curriculum at the school decided to first focus on the learning area of English to commence their curriculum reform efforts. At the beginning of 2016, year level teaching teams worked together with a Head of Curriculum to cross check existing *C2C* English unit plans in use at the school. Year level teaching teams then commenced collaborative planning sessions with their head
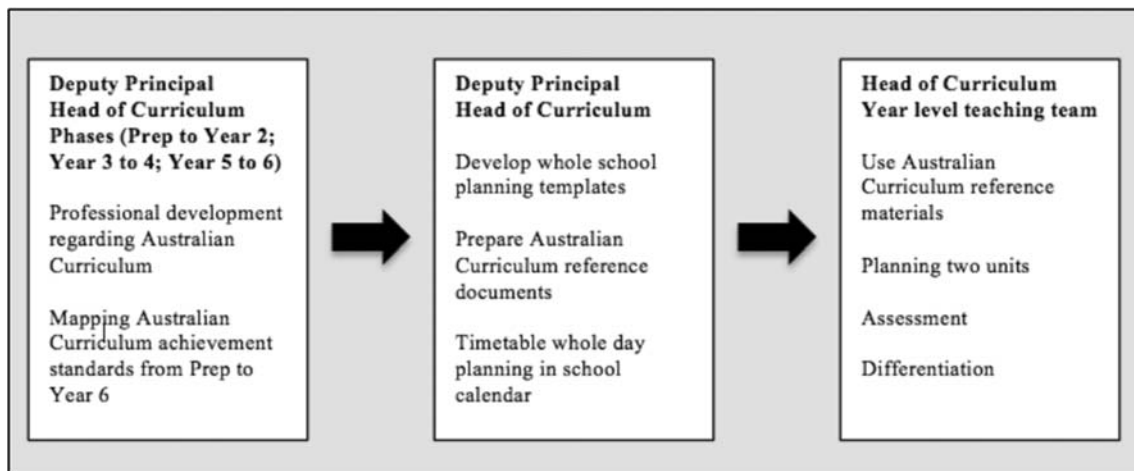
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[1] Pseudonym used.

Fig. 1 Visual representation of school-based curriculum development structures and processes at Leafy Hills Primary School

of curriculum, focusing on developing two English units, based on content and achievement standards from the Australian Curriculum, for use in Term 1, 2017. Whilst teachers were encouraged not to rely on existing *C2C* unit overviews in these planning sessions, the school leadership team decided that existing *C2C* summative assessments for English would remain in use and not be altered. However, the *C2C* formative assessments for English could be adapted, adopted or replaced at the discretion of the teaching teams. This study focused on the collaborative year level planning sessions that occurred in Term 3 of 2017. Teams in these sessions were developing two English units, for teaching in Term 4, 2017. In the following section, I outline the methodology of this study and comment on the ethical considerations I faced as a teacher-researcher.

Methodology

Data collection

Data collection occurred in two research cycles, focusing on two English units collaboratively planned in Term 3, 2017, and then taught in Term 4, 2017. Each cycle consisted of a semi-structured interview with each teacher, and analysis of school curriculum documents including the school's curriculum and assessment yearly overview, and the term English unit plans developed in the school's planning sessions. Interviews in Research Cycle 1 occurred one week after teachers had collaboratively planned two English units for Term 4, 2017. The interviews in Research Cycle 2 took place two weeks prior to the end of Term 4, 2017. These interviews focused on the teachers' enactment of the unit plans developed collaboratively in Term 3, 2017. Document analysis occurred concurrently with the interviews across both research cycles, enriching the research context and supporting discussion in

both interviews. Figure 2 below outlines the timeline of data collection in this study.

Data analysis

Verbal data from interviews and textual data from school curriculum documents was analysed using hybrid thematic analysis (Braun and Clarke 2006), an approach incorporating both inductive (Boyatzis 1998) and deductive (Crabtree and Miller 1992) coding processes. Raw data was first segmented into initial thematic ideas, before 'like' segments were grouped together to form three general clusters that were initially titled 'assessment', 'time' and 'professionalism.' Text segments in each cluster were then sorted into categories through the formation of a codebook, commencing with deductive coding. Priestley et al.'s (2015) ecological conceptualisation of teacher agency, together with the temporal dimensions conceptualised by Emirbayer and Mische (1998) formed the basis of the deductive code development. As 'like' text segments were assigned deductive codes, inductive codes were developed from like instances of meaning. Each code was then assigned larger extracts of data before being sorted into thematic headings. Through revision and refinement, these themes were finalised as 'assessment', 'time' and 'collaboration'. Sub-themes under each thematic heading were then identified. Figure 3 outlines the final themes and associated sub-themes identified.

Ethical considerations

Although my dual role as classroom teacher and researcher had benefits, it also raised ethical issues not typically found in outsider researcher (Smyth and Holian 2008). First, due to my close relationship with the school and the school leadership team, I acknowledge that participants made have felt coerced to participate. As such, it was made clear to participants that the school Principal and other members of the school
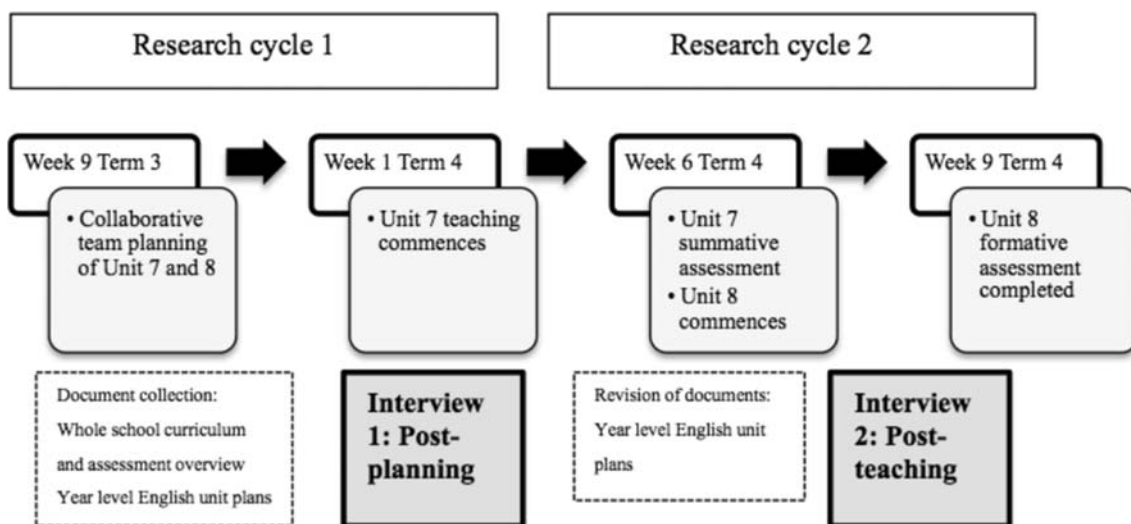
Fig. 2 Timeline of data collection for this study over Term 3 and Term 4, 2017

leadership team would not take part in any interviews or informal research discussions. The school leadership team was made aware that a number of teachers had volunteered for the study but were not provided any access to their names or teaching year levels. Additionally, I engaged participants in ongoing consent, recognising that informed consent is not absolute. Participants were given regular updates and provided with interview transcripts for member checking. My insider

position in this research also presented challenges regarding the maintenance of participant anonymity as institutional anonymity could not be guaranteed. I discussed with participants that in reporting on the research, arrangements would be made to conceal the identity of the school setting through pseudonym use, and the limitation of geographical description. In data collection, analysis and reporting, every effort was made to ensure participants were not identifiable through the use of

Fig. 3 Final themes and sub-themes
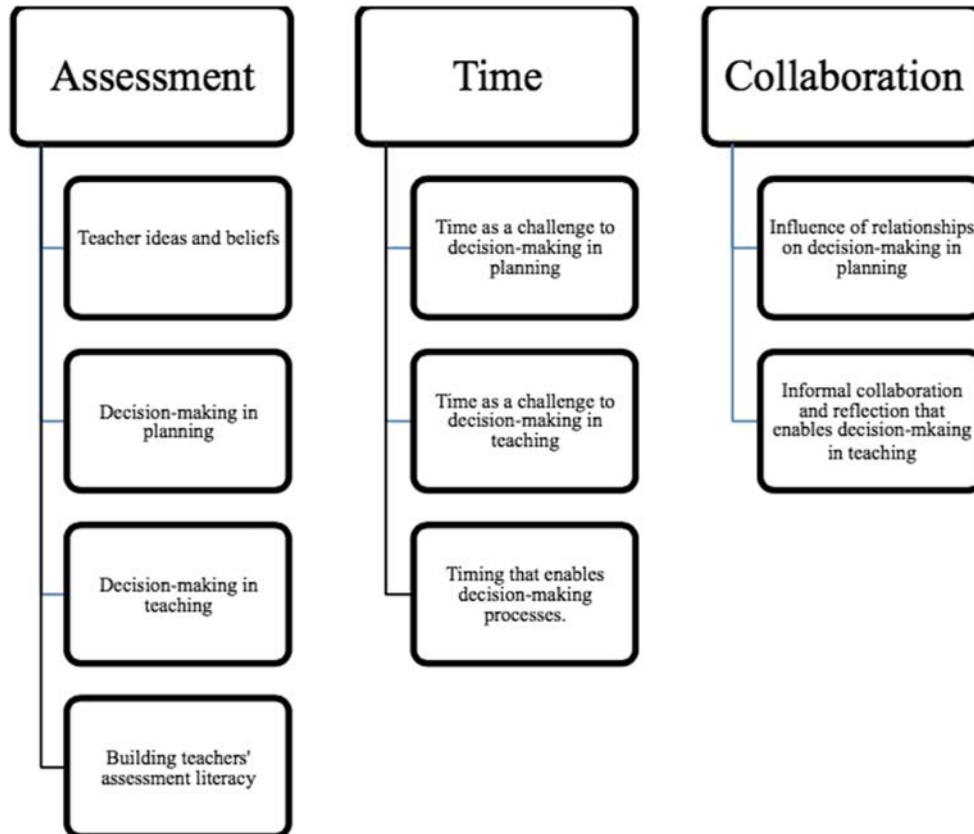
pseudonyms and the presentation of teacher participants as a collective group.

Findings

In the following section, I examine findings related to 'assessment' in reference to the temporal dimensions of teachers' agency (Priestley et al. 2015). I reveal the enabling and constraining nature of assessment on teachers' professional agency by drawing attention to the teachers' beliefs on the use of top-down system-developed summative assessment tasks, and the influence of such assessment in planning and teaching contexts. Providing opportunities for school-based assessment design and implementation, rather than the use of top-down system-developed assessments, emerges as a potential enabler to teachers' professional agency.

Teacher beliefs on summative assessment from top-down system-developed resources

Existing beliefs, both personal and professional, significantly influence teachers' experiences of agency (Priestley et al. 2015). In this study, teachers expressed beliefs on the use of summative assessment tasks produced from the C2C. These beliefs centred on the restrictive and disabling nature of these tasks, their ability to draw on knowledge and skills from past professional experiences, and the ability to present assessment in alternative ways. One teacher, Amelia, makes reference to her own professional practice prior to the introduction of the *C2C*, commenting:

> You'd develop your own units, you'd find your own resources. You then looked at the orientating activities or whatever it was and worked back from the assessment.
> (Amelia, PT, p. 2)[2]

Another teacher expresses her belief on the use of these assessments in her current practice, stating:

> Why do we have to use this assessment? Why do we have to use this booklet? This is rubbish and what is it? I think that this is the whole problem. If we didn't feel so constrained by that document.
> (Christine, PP, p. 5)

Additionally, Belinda shares her personal beliefs about the impact of these summative assessment tasks on her own ways of working and future orientations towards assessment:

> I almost feel my creative juices have sort of been sucked out, and I think well I haven't really had the opportunity to think of another way to present that novel or assessment task to my students.
> (Belinda, PT, p.3)

The *C2C* summative assessment task emerges here as a constraining material factor in the practical-evaluative dimension of these teachers' agency, dominating what they believed to be possible in their work. As a result, this material factor created tension with aspects of the teachers' iterational dimension of their agency, that being their beliefs on how teachers' knowledge and skill should be used to develop student assessment. These beliefs exist as reflections on past school and professional experiences, alongside professional education histories (Priestley et al. 2015). Tensions also seem to arise within the iterational dimension itself, as teachers appear to be developing new beliefs on the use of *C2C* assessment. Belinda's comment demonstrates this, suggesting new beliefs were forming regarding the apparent stifling of teachers' creativity and inability to present alternative assessment. These new beliefs are in direct contrast to the teachers' existing beliefs about school-based assessment practices prior to the introduction of the *C2C* resource. As a result, teachers may have found it difficult to achieve agency due to the negative influence the *C2C* summative assessment task, a material aspect of the practical-evaluative dimension, was having on the iterational dimension of their agency.

Decision-making in planning sessions and in the classroom

Teachers in this study reported weak levels of agency in both planning sessions with their colleagues and in their classrooms. Their comments centred on *C2C* summative assessment and how it challenged their decision-making. One teacher commented on how these *C2C* assessment tasks narrowed the focus of decision-making in planning sessions, stating:

> The development of actual learning that we were doing with the students just didn't happen in favour of us really unpacking the assessment. I would have liked more time to do that backward mapping on teaching and learning.
> (Christine, PP, p. 3)

Another teacher highlighted the restrictions the *C2C* summative assessment placed on the development of contextualised teaching and learning, commenting:

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[2] Note that to support ease of reading and to maintain context of interview responses, direct quotes taken from Interview One: Post-planning (PP) are referenced using the following format, Name of participant, PP, page reference. Direct quotes taken from Interview Two: Post-teaching (PT) are referenced using the following format, Name of participant, PT, page reference.

Occasionally our Head of Curriculum will say something grand like, "You know we know our kids, our kids know all of this stuff." So it's kind of like, "Great, so let's change it all then." But nothing ever kind of eventuated from that. Because at the end of that day, we had to keep all of our provided assessment tasks and that was it, we are doing this because it has an assessment connected. (Tamara, PP, p. 9)

The teachers' comments reveal how the *C2C* summative assessment dominated the objectives of their planning session and impeded on their collective decision-making that related to contextualised teaching and learning. This suggests a disharmonious interplay between the practical-evaluative and projective dimensions of these teachers' agency. The *C2C* summative assessment exists as a negative material factor in the practical-evaluative dimension, a physical resource that inhibited teachers' possibility for action regarding the scoping of teaching and learning for their students. This constraining nature of the *C2C* is not an isolated finding, with previous concerns raised on how such materials impede on school-based curriculum practices and can increase accountability on teachers (Hardy 2015). Tamara's comment, 'we had to keep all our provided assessment and that was it', contributes a teacher's perspective to these concerns, suggesting the mandatory use of these tasks constrained the decisions teaching teams really wanted to make together in planning. This constrained decision-making also appears in tension with aspects of the projective dimension of these teachers' agency, namely when the teacher and their Head of Curriculum expressed intentions to 'change it all'. These short-term aspirations for their work (Priestley et al. 2015), although envisaged to a degree, were unobtainable due to the presence of the *C2C* summative task itself, a negative material factor in the practical-evaluative dimension. Tension between the practical-evaluative and projective dimensions of these teachers' agency in planning resulted in teachers being unable to exercise agency in planning teaching and learning experiences that went counter to the assessment task's objectives.

Similarly in the classroom, the *C2C* summative assessment task constrained teachers' decision-making, namely on their ability to enact teaching and learning experiences in their classrooms that were not aligned with the assessment's objectives. Notions of 'teaching to the test' were expressed, with one teacher commenting:

We did so much teaching to the assessment in order for them to be able to achieve well. I just feel like that's teaching to an assessment, it is not using assessment as an effective tool to measure and grow their learning. (Belinda, PT, p. 6)

Belinda's comment reveals tension between all three dimensions of her agency in her classroom. The *C2C* summative assessment, as a negative material factor in the practical-evaluative dimension, limited her teaching decisions to just satisfying the assessment task's objectives. Constraints placed on this immediate decision-making appears in conflict with Belinda's existing beliefs that assessment should be used to support students' whole academic development, not just achieve well on an assessment piece. These beliefs, aspects of the iterational dimension, are largely grounded in Belinda's past school experiences. Additionally, her comment on using assessment as an 'effective tool' for student learning suggests she continued to hold aspirations in using assessment differently in her classroom. This short-term aspiration is indicative of the projective dimension, supported by existing beliefs Belinda held in the iterational dimension of her agency. However, the continued and mandated use of these assessment tasks, within the practical-evaluative dimension, created tension with Belinda's aspirations. As a result, these aspirations were difficult to enact, limiting Belinda's agency in the classroom.

Whilst Belinda's agency appeared constrained, one teacher reported a different experience. Emily reported greater levels of agency in her classroom, revealing a very different mindset on the use of the *C2C* summative assessment task. Analysis of this experience reveals perhaps more harmonious interactions between the three dimensions of her agency. First, Emily viewed the *C2C* summative assessment as a structure that supported her in making teaching and learning decisions that were tailored to student needs. She commented:

If you understand how a unit overview works and what a shared assessment task is across a grade level, and what you are actually assessing, then you can have all the freedom to make decisions with the structure still there to fall back on when you need it. (Emily, PT, p. 6)

Emily's mindset is in direct contrast to the beliefs her peers held regarding the use of the *C2C*. Alternatively, Emily held beliefs that the *C2C* summative assessment task existed as a structure to fall back on, and that she could easily draw on her own knowledge when working with *C2C* unit overviews to make decisions that were based on student needs. These powerful professional beliefs exist as key aspects of the iterational dimension of her agency. Interacting with this dimension appears to be two distinct factors associated with the practical-evaluative dimension of Emily's agency. These factors include the *C2C* summative assessment task as a negative material factor, and strong collegial relationships as a structural factor in the practical-evaluative dimension. Whilst the *C2C* summative assessment task, existing as a negative material factor, continued to exert a constraining influence on the immediate

context, Emily implied that strong professional relationships with her teaching colleagues and Head of Curriculum helped mitigate the constraining influence of the assessment task, supporting her to make teaching and learning decisions that were student-centred, not assessment driven.

Emily described these relationships as being positive, resulting from a reciprocated sense of trust and respect between her peers. Relationships, like those described here by Emily, exist as a structural factors in the practical-evaluative dimension, and play a significant role in the shaping of teachers' agency in schools (Priestley et al. 2015). Emily's relationships with her teaching colleagues and the school leadership team helped dispel the constraining influence of the *C2C* summative assessment task. In doing so, these relationships, as structural factors in the practical-evaluative dimension of her agency, helped alleviate tension created by the presence of a negative material factor within the very same dimension, the *C2C* summative assessment. With strong beliefs and an alternative mindset on the use of *C2C*, together with tensions alleviated within the practical-evaluative dimension itself, it appears that Emily could then easily draw on the projective dimension of her agency, that being the aspirations she held for enacting teaching and learning approaches in her classroom that were student-centred. By drawing on these aspirations and then enacting them, Emily was able to achieve agency in her classroom.

Whilst the comments in this section have implied the constraining nature of *C2C* summative assessment on the enactment of agency in both planning sessions and in classrooms, further discussions with these teachers revealed a collective aspiration to enhance future experiences of agency through the strengthening of teachers' assessment literacy through school-based assessment development opportunities.

Opportunities for school-based assessment development

Whilst teachers reported engaging in school-based curriculum development practices, the mandated use of *C2C* summative assessment across the school appeared to impede on opportunities for teachers to develop independent assessment tasks, counter to the *C2C*. However, teachers continued to express aspirations regarding school-based assessment design. One teacher commented:

> I just feel like we should absolutely create assessments that tap into students' virtual backpacks, and their funds of knowledge, and the cultural space that they come from.
> (Amelia, PP, p. 9)

Other teachers made similar comments on the importance of school-based assessment development in recognising not only students' knowledge, experiences and cultural backgrounds, but also the knowledge and skills of teachers. Although the *C2C* summative assessment remained a constraining factor, interactions between the iterational and projective dimensions of these teachers' agency continued. When discussing school-based assessment development, teachers appeared to draw heavily on past school experiences and professional education histories as aspects of the iterational dimension. By drawing on these beliefs, teachers also generated short-term aspirations for school-based assessment in their classrooms. These aspirations exist as key aspects of the projective dimension of their agency. Although the presence and use of the *C2C* summative assessment appeared to constrain the enactment of school-based assessment development at the time, it did not impede on teachers' expressing wishes to move entirely away from such top-down system-developed materials. Their comments, similar to Amelia's above, highlight the powerful nature of the iterational and projective dimensions of teachers' agency in helping contest present-day constraints on teachers' work.

One teacher, Tamara, provides an example of how such strong interactions between the iterational and projective dimensions of her agency, together with the elimination of a constraining influence in the practical-evaluative dimension, helped her achieve some agency in assessment delivery. Her experience highlights what can occur when pressures on using a *C2C* assessment task are minimal, enabling aspirations regarding school-based assessment to be realised. Instead of completing the suggested *C2C* formative assessment task, Tamara designed and hosted a literature event for her students. She explains:

> I'm going to be so excited because it is authentic. I don't think any of them are using their assessment text, and they love that. And all the time they are like, "Miss, does this go on our report card?" and I am like, "No, you can be creative." They're bringing in their loves and their interests. I feel like that could be the assessment task because this is kids truly showing their understanding of language and playing with words to make a text that is real for them.
> (Tamara, PT, p. 7)

Tamara expressed satisfaction at the success of the event, commenting that her ability to replace the *C2C* formative assessment and develop an alternative form of assessment was an empowering experience. Her experience demonstrates how the absence of a constraining material factor in the practical-evaluative dimension, enabled her to draw more readily on the iterational dimension of her agency, the beliefs she held on the power of authentic assessment practices. As the projective dimension of teachers' agency is largely grounded in these types of past experiences and beliefs, Tamara was able to both

envisage and enact the short-term aspirations she held regarding school-based assessment, an aspect of the projective dimension of her agency. Whilst strong interactions between the iterational and projective dimensions occurred due to the absence of constraint in the practical-evaluative dimension of her agency, this was mostly due to earlier decisions made by the school leadership team regarding formative assessment. Teachers in this school felt minimal accountability and pressure in using *C2C* formative assessment, as the use of these tasks was not mandated. However, the summative assessment tasks remained a non-negotiable aspect of the school's assessment program. This prompts further consideration into the future scope of these teachers' agency if both the formative *and* summative *C2C* assessments were to be replaced in their entirety.

Discussion

In this study, *C2C* summative assessment emerges as significant constraint on teachers' agency in planning and enacting authentic teaching, learning and assessment experiences for students. Furthermore, the *C2C* assessment appears to challenge teachers' ability to design and implement alternative, school-based forms of formative and summative assessment. Deeper analysis and discussion referring to the temporal dimensions of these teachers' agency (Priestley et al. 2015) helps us to understand how a resource like the *C2C* can constrain teachers' agency in a context involving school-based curriculum development practices.

Teachers in this study reported weak levels of agency in planning and teaching, resulting from apparent tensions between the temporal dimensions of their agency. In particular, the *C2C* summative assessment emerged as a negative material factor in the practical-evaluative dimension of these teachers' agency, constraining the present-day decisions teachers made in planning with colleagues and in classrooms. The use of *C2C* summative assessment in this school appeared to challenge teachers' existing beliefs that formed the iterational dimension of their agency. Teachers held beliefs regarding the importance of teachers' knowledge, skill and expertise in developing student assessment, but such beliefs went counter to the mandated use of a standardised, highly accountable assessment resource in the school. As a result, tensions emerged between the iterational and practical-evaluative dimensions of these teachers' agency, with teachers reporting little opportunity to exercise their agency in curriculum planning or teaching. Whilst teachers reported these constraints, they also continued to generate future aspirations to implement school-based assessment that would push back against the use of the *C2C* resource in the school. These aspirations formed the projective dimension of their agency. However, the continued use of this resource, as a material

factor in the practical-evaluative dimension, prevented any concrete realisation of these aspirations. This suggests that tension arose between the practical-evaluative and projective dimensions of these teachers' agency, weakening opportunities for teachers to further exercise agency in school-based assessment practices.

Whilst tensions between the temporal dimensions appeared to constrain teachers' agency, some instances of agency were reported and were worthy of further analysis. These included the classroom experiences of Tamara and Emily. Tamara's achievement of agency seemed to result from her decision to replace a *C2C* formative assessment with a community literature event that enabled her students to present their knowledge and understanding in an alternative way. The absence of the *C2C*, a negative material factor in the practical-evaluative dimension, enabled Tamara greater scope to draw on the iterational, the existing beliefs she held about authentic student assessment practices and the projective dimensions of her agency, namely her desire to implement alternative forms of assessment in her classroom. Through a more harmonious interaction between all three dimensions of her agency, Tamara achieved some degree of agency in the present-day context of her classroom. It should be noted, however, that Tamara's ability to replace the *C2C* formative assessment task was made easier by the school leadership team's decision not to mandate the use of *C2C* formative assessment across the school. *C2C* summative assessment remained, what the teachers described as, a non-negotiable aspect of the school's curriculum plan. This mirrors what others observe as the growing demand for accountability and standardisation of summative assessment practices deemed necessary for consistency (Wyatt-Smith et al. 2010).

Furthermore, Emily's achievement of agency in her classroom reveals the dynamic interactions that occur between, and within, the temporal dimensions of teachers' agency. Analysis revealed a dynamic interplay between two factors in the practical-evaluative dimension of Emily's agency. Whilst the *C2C* summative assessment remained a negative material factor in this dimension, structural factors in the same dimension, namely strong working relationships with the school leadership team and other teaching colleagues, appeared to mitigate the constraining influence of the *C2C* summative assessment task. With tension relieved within the practical-evaluative dimension itself, Emily appeared to exercise greater agency in determining teaching and learning experiences for her students. Additionally, Emily also held existing beliefs regarding the purposeful nature of standardised assessment, and the value of curriculum documentation in supporting, not dictating, teacher decision-making. By drawing on these beliefs, aspects of the iterational dimension of her agency, Emily developed an alternative mindset to other teachers in this study on the use of *C2C* summative assessment. With apparent ease in drawing on these beliefs in the iterational dimension of her agency,

Emily appeared to form strong and independent aspirations for her own classroom practices. This suggests that positive interactions between the iterational and projective dimensions of her agency resulted in Emily's aspirations being envisaged and enacted.

In this study, structural factors like collegial professional relationships, aspects of the practical-evaluative dimension, and strong professional beliefs regarding the value of teachers' knowledge and skill in student assessment, aspects of the iterational dimension, helped some teachers counter the constraining influence of the *C2C* assessment. In doing so, these teachers had greater scope to draw on the projective dimension of their agency, namely their future orientations and aspirations to exercise agency regarding teaching and learning for their students, but also the opportunity to develop school-based formative and summative assessment. I argue here that the projective aspirations our teachers have regarding curriculum and assessment should be acknowledged, so that these aspirations become a true reality of tomorrow. All teachers in this study, although constrained by the *C2C* assessment, expressed short-term aspirations to enhance their agency through school-based assessment development opportunities. As such, there is a strong impetus to strengthen teachers' assessment literacy so that school-based assessment development becomes a vital part of teachers' agency in curriculum work.

In a current context of the centralisation and standardisation of teachers' work, it is vital that we advocate the importance of strong assessment literacy for our teachers. Teachers require effective understanding of student assessment practices, and the opportunity to readily practice the fundamentals of formative and summative assessment design in their schools (De Luca et al. 2016). Additionally, teachers should be prepared to engage in assessment design as a dynamic and context-driven social practice that enables them to articulate and negotiate both classroom and cultural knowledge (Willis et al. 2013). Like their counterparts in New Zealand and parts of Canada, Australian teachers should be able to exercise agency in developing assessments that suit school context and student needs (De Luca and Johnson 2017). Strengthening teachers' assessment literacy may be one way to support teachers in countering the constraining influences of top-down system-developed materials, like *C2C* summative assessment, and help teachers achieve greater agency in their work.

Conclusion

In this study, a top-down system-developed resource like *C2C* summative assessment appeared to constrain teachers' reported experiences of agency in collaborative planning sessions and in classrooms. Social structures like positive and trustworthy relationships with peers and members of the school leadership team, strong beliefs regarding the use of shared assessment and teachers' knowledge and skill in assessment development, and the absence of a top-down system-developed material, helped some teachers in this study report greater experiences of agency. Importantly, all teachers in this study expressed aspirations to develop and implement school-based assessment as a vehicle to enhance their own agency. I argue that close attention be placed on how top-down system-developed assessment impacts on teachers' agency, and how this assessment may constrain the agency of teachers in different contexts outside this case study. To challenge these constraints, the promotion and strengthening of teachers' assessment literacy exists as key enabler of teachers' agency in the future. Regular opportunities to strengthen teachers' assessment literacy may enable aspirations for school-based assessment to be realised, and for curriculum and assessment development to remain the intellectual, scholarly and knowledge work of teachers (Mockler 2018).

It is vital that teachers provide feedback on the relevance of top-down system-developed assessment tasks, and advocate for ongoing and targeted in-school professional development that strengthens their assessment literacy. School leaders should support teachers in designing a range of quality formative and summative assessments by building an effective assessment culture that acknowledges teachers' professionalism and student needs (Klenowski and Wyatt-Smith 2014). Finally, governing bodies should explicitly acknowledge the important role of teachers as curriculum agents, and support schools in engaging in authentic curriculum and assessment development. Whilst the small size of this case study is a recognisable limitation, a larger case study design would be useful in further determining the influence of standardised assessment, and assessment literacy, on teachers' agency. In valuing teachers' assessment literacy, it is hoped that teachers' agency is enhanced, so that teachers can continue to make a valuable impact on productive and sustainable curriculum reform efforts in the future.

Compliance with ethical standards

Approval was obtained from Queensland University of Technology's Human Research Ethics Committee (Approval: 1700000783) to conduct this study.

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