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Policy driven reforms and the role of teacher educators in reframing teacher education in the 21st century

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Abstract

The current policy moment for teacher education in Australia is calling into question the value of teacher education as it is currently practised, proposing alternative pathways into teaching and at the same time tightening outcomes with statements of professional standards for teachers and input measures as part of teacher education regulation. Many features of this current policy moment have the potential to deprofessionalise teacher education and the profession. I argue that teacher educators must work towards shaping the current and future agendas in order to professionalise teacher education and frame the teacher education system in the 21st century. To do that we need to address some of the key questions being asked of us, such as: What is the value of teacher education? What should beginning teachers know and be able to do? How can judgements be made about what beginning teachers know and are able to do? I think we must ensure research-informed and practice-validated professional standards for teaching at various junctures in the teaching career, but specifically for beginning teaching, that capture the complexity and context specific nature of quality teaching and professional judgement. In addition, authentic assessment of beginning teaching that involves consideration of teacher professional judgment and student learning in a range of diverse contexts is an important consideration in re/framing the teacher education system of the 21st century. In conclusion, I argue teacher education research must respond to and inform the questions being asked of us in this policy moment about the value of teacher education.

The 'problem' of teacher education

The value of teacher education as it is currently practised is increasingly being questioned in Australia. For example, a recent discussion paper from the Victorian Department of Education and Early Childhood Development, *New Directions for School Leadership and the Teaching Profession*, states:

> All too often Victoria's teacher training, referred to as pre-service education, falls short of the demands of today's schools. While there are

many providers, quality outcomes are inconsistent. Principals report that in the case of more than one-third of teachers, insufficient pedagogical preparation hinders student instruction. The market does not provide transparent data about the quality of graduates and has not been open to competition from new entrants, such as high quality providers from overseas that have obtained better results. (Department of Education and Early Childhood Development, 2012, p. 10)

Over the past decade or so, the policy debates around teacher education governance in many countries have become increasingly polarised, posing the deregulation of university-based teacher preparation on the one hand against a defence of professionalism grounded in the academy on the other. Those promoting deregulation argue there is little evidence of the value added by teacher education as it is currently practised, and argue instead for regulatory standards and performance indicators in lieu of traditional teacher preparation pathways. This is often accompanied by calls for 'alternative pathways into teaching', which often means bypassing teacher preparation offered in the academy. The argument for more 'alternative pathways into teaching' is usually based on the premise that traditional teacher preparation simply gets in the way of 'good' prospective teachers entering the profession. On the other hand, those calling for increased professionalism suggest policies and practices that promote professional self-regulation and semi-autonomy, arguing that the most important factor in student learning is the teacher and that therefore time and money should be put into professionalising the teaching workforce with high-level qualifications and ongoing professional learning.

The deregulation agenda is often playing out in tandem with a push to more national or federal policies. Over recent years in Australia, we have seen a significant increase in federal government influence over schooling and teachers' work (traditionally the jurisdiction of the states), accompanied by signs of decreasing confidence in teacher education. For example, the *Smarter Schools—Improving Teacher Quality National Partnership* (TQNP) programme, funded at $550 million over five years from 2009 to 2013, focuses on areas including

- attracting the best graduates to teaching through additional (alternative) pathways;
- improving the quality of teacher education (with more attention on the practical component in schools);
- developing national standards and teacher registration;
- improving retention by rewarding quality teachers and school leaders (including performance pay);
- knowledge of teachers and school leaders through their careers; and
- improving the quality and availability of teacher workforce data.

This policy has so far resulted in the introduction of alternative pathways into teaching such as *Teach for Australia* and *Teach Next*, the establishment of *School Centres for Teaching Excellence* designed to enhance the practicum experience for pre-service teachers, and the development of nationally consistent accreditation of teacher education programmes and teacher registration.

Sustaining the professionalism of teacher education

While this focus on the importance of teacher preparation is very welcome, I suggest that many features of this current policy turn have the potential to deprofessionalise our work as teacher education practitioners and researchers. This sort of positioning of teacher education as a 'policy problem' (cf. Cochran-Smith & Fries, 2005; Grimmett, 2009) and regulation via input measures, though politically expedient and perhaps popularly attractive, is a misguided attempt at quality assurance for teacher education and beginning teaching. The reality is that there is no research evidence that any of these measures improve the quality of graduating teachers.

In this paper I explore how we as teacher educators can focus our research and practice to sustain the professionalism of teacher education and shape the teacher education system into the 21st century. To do that, I suggest we need to address some of the key questions being asked of us, such as: What should beginning teachers know and be able to do? How can judgements be made about what beginning teachers know and are able to do? What is the value of teacher education? By focusing our practice and research in this way, I suggest we can best counter the current surge of attention to regulating 'inputs', which are prescribing both who can enter teacher education and what they will study once in the programme and thus narrowing the autonomy and professionalism of our work as teacher educators. I discuss the context of professional standards for teachers, particularly standards for graduate teachers, teacher education's accountability in relation to beginning teacher capability, and ways in which our research can counter the often anecdotally informed 'teacher education is failing us' headlines.

1. Professional standards: What should beginning teachers know and be able to do (and be)?

Increasingly, the construction of 'standards' for both students and teachers, accompanied by notions of 'control' through various policy and implementation procedures, are seen as offering quality assurance. A standard set by some central agency or bureaucracy, to which others must aspire, is seen as the accountability mechanism for ensuring a good return on investment. Indeed, the push for the installation and promulgation of teacher standards has been a worldwide phenomenon (Storey, 2006).

So what is our role as teacher educators in this context? I argue that we must inform and continually shape statements of what it is beginning teachers should know and be able to do. We know that teaching is complex and therefore recognising and naming quality teaching will be complex. Changing and challenging curriculum expectations along with increasingly diverse learners mean that teachers have to be quite sophisticated in their understanding of the effects of context and learner variability on teaching and learning. Instead of implementing set routines, they need to be adept at evaluating teaching situations and developing teaching and learning opportunities that can be effective under different circumstances. In short, teaching is intellectual work requiring professional judgement. So, how do we name what it is that teachers should know and be able to do (and, some would argue, 'be')? As Storey contends, "the thrust of central policy-making has resulted in the reduced professional autonomy of teachers

through prescription, target-setting and evaluation techniques that strip away the subtleties and complexities of the teaching role" (Storey, 2006, p. 218).

Over the past decade, professional standards for teaching have been developed in Australia to describe effective professional practice at various junctures in a teaching career (e.g., Ministerial Council on Education Employment Training and Youth Affairs, 2003; The State of Queensland [Department of Education], 2005) and often within a particular subject area (e.g., Australian Association of Mathematics Teachers, 2006; Australian Science Teachers Association, 2002; Standards for Teachers of English Language and Literacy in Australia [STELLA], 2002). These standards have sought to capture the nuances associated with teaching in different subject areas and grade levels as well as in different school systems and contexts. However, while statements of professional standards are intended to create a shared and public 'language of practice' that describes how the specialised knowledge of teaching is used in practice and also be a vehicle for assessing and judging professional activity (Yinger & Hendricks-Lee, 2000), this work has not always been aligned and coordinated. Many constituencies within the profession have attempted to articulate effective professional knowledge and practice at various junctures along the professional learning continuum and related career transition points, and to control and regulate their slice of the profession. Consequently, the profession has not been heard as a strong collective voice and has been more easily disregarded by policy makers as new national agendas unfold. With the establishment of the Australian Institute for Teaching and School Leadership in January 2010, a common set of professional standards for teachers has been developed to be used across the country to regulate teacher education accreditation, teacher registration and recognition for highly accomplished teaching (Australian Institute of Teaching and School Leadership, 2011a, 2011b).

Within this context, I believe it is necessary for teacher educators to interrogate through various research agendas the validity of the standards statements as accurate descriptors of what effective teachers know and can do at various points in their careers. We know that many statements of professional standards simply reflect the collective wisdom of whoever is invited to develop and then comment on them at a particular point in time. There is sometimes reference to research on effective teaching, but rarely are the standards subjected to rigorous interrogation over time.

Our research on teacher education and beginning teaching can be particularly effective in helping to understand what it means for graduates to be 'work-ready' as beginning teachers. This is not as simple and clear-cut as many would have us believe. For example, in an Australian Research Council funded research project,[i] my colleagues and I are in the process of building case studies of teachers negotiating the first two to three years of their careers. While these are still in progress and much analysis still needs to be done, we are finding that many of the first- and second-year teachers agree that teacher education can only, by definition, prepare them as beginning teachers and that as beginning teachers in a variety of diverse contexts within which they now find themselves employed and teaching, they will have additional things to learn—things that are context specific in many cases. Their school leadership also understands that the new teachers they have employed have been prepared as beginning teachers. However, using the framing of teachers' work and the fact that these new teachers have essentially the same work to do as their more experienced colleagues, the school leadership often positions these new teachers as somehow deficit and needing to be

'fixed' or topped up—they are found somehow wanting for teaching in the 'real world'. So, what does it mean to be an effective beginning teacher in a variety of complex and diverse school contexts? Our research must inform this question.

2. Judging what beginning teachers know and are able to do

With research- and practice-validated standards for teaching, the profession then has to consider how these will be used in making decisions about entry into the profession and progression within it. For teacher education, this involves providing opportunities for graduates to provide evidence of their effectiveness as beginning teachers and what that might mean for the teacher education curriculum. Authentic judgement of beginning teacher quality is a crucial issue we need to address as we think about the teacher education system of the 21st century, and it is teacher educators who must lead this work. We need to provide an alternative to the value-added mechanisms based on standardised test scores that are currently being employed in some countries where teacher quality is equated with test score gains and narrow measures of student achievement are often used as proxies for teacher quality. We need to avoid and provide an alternative to "the outcomes trap … the assumption that evaluating teacher preparation on the basis of graduates' impact on pupils' eventual test scores is appropriate and will solve the teacher quality problem" (Cochran-Smith, 2008, p. 276).

The new nationally framed regulation system for accreditation of teacher education in Australia includes an increased emphasis on outcomes and the need for graduates to be able to provide evidence that they have the requisite professional knowledge, practice and engagement capabilities as outlined in the new graduate standards (Australian Institute of Teaching and School Leadership, 2011a). However, in the main, entry to the profession continues to be regulated by state agencies that use input models to make decisions about teacher registration and readiness to teach. Judgements are made about the quality of a teacher education programme usually by paper review involving a panel of stakeholders deciding on the likelihood that the programme will prepare an effective beginning teacher. Then, employers and teacher registration authorities use proxies like completion of the accredited teacher education programme, grades in university subjects or results in practicum evaluation forms and observations of teaching to make a judgement about a graduating teacher's level of professional knowledge and practice—about their readiness to teach. So while the new system of accreditation of teacher education programmes frames a standards-based and outcomes-focused approach to regulation of the profession, the mechanisms by which decisions are made often still draw on an older inputs-based approach. Take for example, the huge amount of work done over the past 6–12 months on determining entry requirements (e.g., Australian Institute of Teaching and School Leadership, 2011a, Programme Standards 3.1 and 3.2) and the seemingly ever-expanding content requirements for teacher education programmes (a unit in X, a unit in Y, and so on).

I argue that authentic assessments of the actual professional practice of teachers in the workplace, incorporating multiple measures and focused on student learning, are needed in an outcomes-focused professional accountability system that we as teacher educators must drive. By doing this, we can assure the profession, regulatory authorities, governments and the community that we are preparing quality beginning teachers who are able to demonstrate the effectiveness of their professional knowledge and practice in ensuring student learning. That leaves us to professionally decide on the

most appropriate teacher education curriculum in order that our graduates are indeed able to demonstrate the professional knowledge, skills and engagement capabilities expected in statements of standards and also expected according to the mission and vision of the particular teacher education programmes and/or institution. Moreover, we need to ensure an approach by which all graduates can provide evidence of their capability in the range of diverse contexts in which they teach.

As Darling-Hammond and Snyder (2000) note, "There is a growing interest among educators and evaluators in constructing other forms of assessment that better reflect the complexity of teaching and can provide valid data about competence while helping teachers improve the calibre of their work" (p. 526). I also agree with them that assessments such as the practicum report do "not address important differences in context and content, and they ignore … the influence of teaching on learning" (p. 525). Given the increasing focus on "how [teacher] preparation influences teachers' effectiveness, especially their ability to increase student learning in measurable ways" (Darling-Hammond, 2006, p. 120), and given that we know that no one single factor can be identified as the sole contributor to the impact a teacher has on student learning, evaluation of teachers on multiple measures is important when considering teacher impact on student learning. As Linda Darling-Hammond and her colleagues have shown, the use of student learning data alone as a measure of teacher effectiveness does not help guide decisions related to programme improvement (Darling-Hammond, Newton, & Wei, 2010). A range of approaches is required.

Portfolio assessments (*structured* or *unstructured*) are often used in teacher preparation programmes, usually as a capstone assessment (St. Maurice & Shaw, 2004). Structured portfolios require pre-service teachers to submit specific artefacts of teaching in response to standardised prompts. These artefacts and responses are then assessed using an evaluation tool, usually a rubric. With unstructured portfolios, what and how artefacts are selected varies: 'showcase' portfolios involve selection of 'best work'; professional learning portfolios involve things like a statement of teaching philosophy, a videotape of teaching, lesson plans or units, and reflections. These portfolios serve primarily a formative purpose. However, if a portfolio is to be used as an authentic assessment to support a graduation or registration decision, then its design and development must be much more structured and psychometric issues need attention (Mayer, Pecheone, & Merino, 2012).

An example of a structured portfolio that has been used for high stakes credentialing decisions is the Performance Assessment for California Teachers (PACT). PACT represents a multiple measures assessment used as part of initial teacher registration in California. It is designed to collect evidence of pre-service teachers' content and pedagogical knowledge as well as higher-order thinking skills (Pecheone & Chung, 2006) and assesses "the planning, instruction, assessment, and reflection skills of student teachers against professional standards of practice" (Darling-Hammond, 2006, p. 121). The tasks "are designed to measure and promote candidates' abilities to integrate their knowledge of content, students and instructional context in making instructional decisions and to stimulate teacher reflection on practice" (Pecheone & Chung, 2006, p. 24).

At Deakin University in Australia, we drew on both the structure and the content of PACT to inform the design, implementation and evaluation of what is now known as the Deakin Authentic Teacher Assessment (ATA), where graduates of the teacher

education programmes demonstrate their effectiveness in relation to the work of teachers in the workplace as framed by the Victorian Institute of Teaching (VIT) *Standards of Professional Practice for Graduating Teachers* and, more recently, the new *National Professional Standards for Teachers* (Australian Institute of Teaching and School Leadership, 2011b). Like PACT, the ATA is designed to include "multiple measures that allow a comprehensive view of what candidates learn and what a program contributes to their performance" (Darling-Hammond, 2006, p. 135). It requires candidates to submit a structured portfolio including teaching plans, teaching artefacts, student work samples, video clips of teaching, and personal reflections and commentaries. The ATA is assessed using rubrics informed by the VIT *Standards of Professional Practice for Graduating Teachers*.

The Deakin ATA was first implemented in 2010 as a compulsory capstone summative assessment in the new Master of Teaching postgraduate teacher education programme. Similar to the PACT in California, the ATA has five components designed as activities that reflect components of the teaching experience:

1. *Context for Learning*: Pre-service teachers are required to write about the learning context within which they are working, describing the school and the classes they teach and factors impacting on the learning environment.

2. *Planning Teaching and Assessment*: Pre-service teachers describe, explain, and justify their teaching and assessment plan for a sequence of 5–8 lessons.

3. *Teaching Students and Supporting Learning*: Pre-service teachers videotape themselves teaching, submit a ten-minute segment of the video, and contextualise and reflect on the video segment in an accompanying written statement.

4. *Assessing Student Learning*: Pre-service teachers report on their assessment tasks, provide samples of students' work and describe how the assessment outcomes inform ongoing planning and teaching.

5. *Reflecting on Teaching and Learning*: Pre-service teachers provide an analysis of their teaching practice and students' learning and how they have used this to improve their teaching practice.

An investigation of the initial implementation of the Deakin ATA in 2010–2011 (Dixon, Mayer, Gallant, & Allard, 2011), found that the pre-service teachers, the classroom teachers who supervised them, and the Deakin University academics involved in its implementation agreed that the ATA provided evidence of pre-service teachers actually doing the complex work of teachers. However, some challenges were highlighted associated with being a 'visitor' in someone else's classroom, as pre-service teachers invariably are. The research indicated that much work needed to be done in defining and clarifying the role of the cooperating or supervising teachers as well as the university academics in the process of developing, implementing and grading the ATA. It also highlighted where programmatic improvements were needed in the teacher education programme, specifically in developing, implementing and then using assessment to validly gauge student learning and subsequently modify teaching practice, and also in establishing a useful framework to guide the pre-service teachers' critical reflection. Like Linda Darling Hammond and her colleagues (Darling-Hammond, Newton, & Wei, 2012), we found that the pre-service teachers' professional learning was positively impacted as a result of participating in the ATA, with pre-

service teachers reporting they gained a deeper understanding of teachers' work and the relevant professional standards, and learned quite a lot about assessment, particularly the use of assessment as a diagnostic tool. All respondents agreed that completing the ATA helped the pre-service teachers to move their focus from attention to classroom management and organisational matters to important professional decisions about student as learners. However, an important consideration for this work as it progresses is that while the ATA is a comprehensive capstone assessment incorporating multiple measures, like PACT it does not and cannot capture all dimensions of teachers' work. Essentially, it only captures teachers' work in the classroom as they interact with students. However, there are other aspects of teachers' work across the school and indeed the profession that are not captured, for example engaging with colleagues and dimensions of ethical engagement. Therefore, other ways of providing opportunities for graduating teachers to demonstrate their capability in these areas will be needed. In California, Embedded Signature Assessments (ESAs) were identified within teacher education programmes to provide this evidence.

Therefore, I am arguing that if teacher educators are to reclaim a role within a professional accountability framework, we need to develop research-informed and validated professional standards that capture the complexity and context-specific dimensions of quality beginning teaching and professional judgement, but we also need to develop ways of authentically judging quality teaching and professional judgment and the associated student learning. As Pecheone and Chung highlight, "A well conceptualized teacher assessment system that incorporates multiple sources of data, including an assessment of teaching performance, has the potential to provide the evidence needed to demonstrate the significant contribution of teacher education on teaching performance and ultimately on student learning" (Pecheone & Chung, 2006, p. 34). What else can we do to demonstrate the value of teacher education?

3. Researching teacher education: The research we have to have

Pam Grossman suggests that "as researchers and practitioners in the field of teacher education, we seem ill prepared to respond to critics who question the value of professional education for teachers with evidence of our effectiveness" (Grossman, 2008, p. 13). This is not a recent realisation. Successive reviews of teacher education research have come to similar conclusions. In 2005, a major review of teacher education research in the USA by Division K of AERA pointed out that there were almost no studies that could demonstrate direct causal links from teacher education programmes to student learning (Cochran-Smith & Zeichner, 2005). I suspect that this would be true of many other countries and that, even seven years later, little has changed. In Australia, successive government inquiries into teacher education have recommended large-scale research projects investigating the value of teacher education (e.g., Education and Training Committee, 2005, pp. 66–67). However, as yet, few large-scale studies of this sort have been conducted.

Of course, there are many reasons for this. Major grants are rare in the field of teacher education and consequently teacher educators study their own programmes, producing many small-scale but often unconnected studies of teacher education practice. These studies do not produce convergent findings; indeed they never set out to do so. But, it must be said that teacher education practice has benefited greatly from this research. Teacher educators have learned a lot about how to design and implement

effective teacher education programmes. However, while such studies do provide a useful research base for informing teacher education practice, a significant gap remains for high quality, larger scale research into the effect of teacher education, research with which policy makers will engage. As Pam Grossman notes:

> [A]s a research community, we have spent relatively little sustained effort trying to determine how teacher preparation, of any kind, affects either teachers' classroom practices or their influence on student learning, outcomes that are arguably those that the public—including parents and policy makers alike—care about most. (Grossman, 2008, p. 14)

There are some attempts in the US to do this in a large and systematic way. The Teacher Pathways Project (see http://cepa.stanford.edu/tpr/teacher-pathway-project) involves a team of researchers, including Susanna Loeb, Donald Boyd and Pam Grossman, who are examining a number of different pathways into teaching in New York City, the characteristic of those programmes and the impact of their characteristics on a range of things, including student achievement in reading and mathematics.

In Australia, one empirical investigation of the effectiveness of teacher education recruited a group of teacher education students in their final year and followed them through to the end of their second year of teaching. This research, lead by Bill Louden, attempted to link programme characteristics and personal characteristics with effectiveness in literacy and mathematics teaching, taking account of the impact of school context on teaching effectiveness (Louden, Heldsinger, House, Humphry, & Darryl Fitzgerald, 2010).

The current Australian Research Council-funded project referred to above, Studying the Effectiveness of Teacher Education (SETE) [refer endnote [i]], is a longitudinal mixed-methods study following all teacher education graduates in two Australian states—Queensland and Victoria—into the first three years of their teaching career to determine the effectiveness of their teacher preparation for the diverse settings in which they are teaching. The project is using an iterative mixed-methods approach drawing on school-based case studies and surveys of graduate teachers and their principals. The following research questions are guiding the project:

- How well equipped are teacher education graduates to meet the requirements of the diverse settings in which they are employed?

- What characteristics of teacher education programmes are most effective in preparing teachers to work in a variety of school settings?

- How does the teacher education course attended impact on graduate employment destination, pathways and retention within the profession?

The research team has also been contracted by the Australian government to extend parts of the study to all other states and territories in Australia during 2012 and 2013 (Mayer et al., 2012–2013). This Longitudinal Teacher Education Workforce Study (LTEWS) includes SETE data and is tracking 2011 teacher education graduates across Australia into, through and out of the Australian teaching workforce, providing comprehensive quantitative data and qualitative profiling of individuals' journeys and a picture of the teacher life cycle more generally. In addition, it is investigating early career teachers' views on the relevance and effectiveness of their teacher education programmes for their beginning careers in the teaching profession.

Though this work is ongoing and data collection is incomplete, early findings from both these studies are providing some understanding in relation to how early career teachers and their principals think about the usefulness of their teacher education programmes. For example, in round one of the SETE graduate teacher survey in Queensland and Victoria (conducted about three months into their first year of teaching), approximately three-quarters of respondents agreed or strongly agreed that they would recommend their teacher education programme to someone else wishing to become a teacher. They indicated feeling well prepared by their teacher education programmes in i) knowledge and skills to engage in reflective practice, ii) understanding ways in which students learn, and iii) evaluating and adjusting teaching in classrooms. Graduate teachers who responded to the survey indicated feeling less well prepared by their teacher education programmes in i) teaching to linguistic diversity in the classroom, ii) supporting full participation of students with a disability, and iii) working with the school's surrounding local community. When asked about key challenges faced in their first year of teaching, the graduate teachers and their principals both identified classroom management and catering for diverse learners as the most challenging (Mayer et al., 2012a, 2012b). Further data, more nuanced interpretations and longitudinal analyses are forthcoming.

While such large-scale empirical studies employing mixed-methods approaches will go a long way to helping us respond to teacher education critics with evidence of our effectiveness or not, there are other measures teacher educator researchers can take with the case study and ethnographic work which typifies a lot of our research. As Ken Zeichner has reminded us, we must systematically connect with other studies that have asked similar questions, conduct research that builds on its own findings and where possible use common instruments and outcome measures that make it possible to aggregate findings (Zeichner, 2005).

Concluding comments

This paper has focused on the teacher quality reforms currently being debated and enacted in Australia as responses to the political positioning of teachers and teaching and related questions about the value of teacher education, professional standards and teacher assessment. The federal government is implementing a 'national solution' through its TQNP programme. This programme is emphasising alternative pathways into teaching along with articulated standards for entry into the profession and progression within it. Traditional approaches to teacher education are being questioned and teacher education itself is being positioned as a 'policy problem'. I have suggested how teacher educators might engage the current and future agendas in order to sustain the professionalism of teacher education and shape the teacher education system in the 21st century. I believe we must ensure research-validated statements of professional standards for teaching at various junctures in a teaching career as well as reliable and valid measures of beginning teacher quality in relation to those standards.

Importantly, I believe we must direct our research and professional activity to issues that speak directly to the questions being asked of teacher education; that or risk marginalisation as national funding and political energy are directed towards agendas that could end up simply bypassing teacher education as it is conducted in universities and increasing bureaucratic control of the teaching profession. It is important that teacher educators direct their research to studies examining the value of teacher

education and lead national policy discussions about quality teaching. It is important that our research is relevant to and continues to inform the construction and reconstruction of national statements of quality teaching as well as the processes of initial teacher education accreditation. Moreover, it is critical that our work informs the mechanisms by which new teachers are judged as eligible for entry into the profession and the ways in which they are recognised and rewarded for reaching significant professional milestones throughout their teaching career.

As Donna Wiseman reminds us:

> The ideal is that newly established policies will emerge out of research results and findings. Currently, that is not the way it happens. Policy is more likely to emerge from public perceptions, based on isolated anecdotes or support for recent educational fads or initiatives. In more cases than not, policy emerges quickly and without the benefit of research before or after mandated innovations are implemented. Policy development will be more supportive toward teacher education when we are able to study changes and the impact of these changes on the preparation of high-quality teachers and the achievement of schoolchildren. We are not able to present the needed data at this point. The current context offers a rich environment for policy-related research and the opportunity for researchers to analyze data collected at the state and national level. Such research should become an important focus of our scholarship as we measure the effectiveness of teacher education.
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> … The public and political rhetoric will continue, and it is safe to say that during the coming years, teacher educators must be prepared to participate in the debates in an informed and reasoned manner. It will be up to us to contribute scholarly solutions to the policy questions and issues. (Wiseman, 2012, p. 90)

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