Professional Certification: Promoting, Recognising and Rewarding Accomplished Teaching

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## Contents

**Introduction** ....................................................................................................................................... 3  
**The Challenge** .................................................................................................................................... 4  
**Needed: Leadership at the level of the profession** ......................................................................... 6  
**Assuring Teacher Quality: The Importance of Policy Coordination** ............................................ 7  
**Professional Certification** ........................................................................................................... 8  
**The Concept of a Standards-based professional learning and certification system** 9  
**An Emerging Professional Certification System** .......................................................................... 11  
**Defining accomplished teaching for certification purposes** ......................................................... 15  
**Developing standards for accomplished teaching** ....................................................................... 16  
**Characteristics of Well-Written Standards for Assessment Purposes** ........................................... 18  
**Recent approaches to standards-based methods for assessing teacher performance** .................. 20  
**Effects on Professional Learning** ................................................................................................. 22  
**Recognising and Rewarding Professional Certification** .............................................................. 22  
**Concluding Remarks** .................................................................................................................... 24  
**Bibliography** ..................................................................................................................................... 26
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Introduction

This paper focuses on the challenge of developing a national system for recognising and rewarding accomplished teachers. What might be involved and how might this be achieved? It draws on the experience of several countries that have sought to reform teacher career structures and pay systems so that there is a closer alignment between career progression and developing expertise as a teacher. I understand that Brazil has been moving in this direction and I hope this paper will make a useful contribution to the debate here.

Although the paper focuses on teacher quality, it is embedded in acknowledgement that other factors are just as important to student learning and development, some more so. Teachers, no matter how good they are, will find it hard to compensate for factors external to the school, such as poverty and the effects of inequality in a society—therefore expectations need to be realistic. National policy to improve learning outcomes need to move on several fronts.

When it comes to the quality of opportunities for students to learn in schools, the research is clear; nothing is as fundamental as the professional knowledge, judgment and skills of their teachers. Several studies, such as that by McKinsey & Company (Barber and Mourshed, 2007: 13), show that the world's best performing school systems give priority to policies, strategies and institutions for recruiting, preparing and recognising quality teachers.

It is apparent that Brazil has embraced this understanding and incorporated it into its policies for improving the quality of schooling. A lot is going on in Brazil already with respect to improving teacher quality. According to a recent OECD report (OECD, 2010), salaries for teachers in Brazil have risen significantly in recent years, especially in disadvantaged regions. Teachers now make almost 50% more than the average Brazilian worker, although they still make less than others with a secondary school education or better. According to the same report, Brazil is an example of a country that has managed to make considerable progress in recent years, against substantial economic and social odds.

A country’s teaching profession and its schools constitute an infrastructure just as important to long term economic viability as more obvious types of infrastructure, such as energy production and transport. This infrastructure has to be nurtured constantly and replenished over the long term. There are no short cuts. Countries such as South Korea, Singapore and Taiwan have steadily pursued policies to improve the quality of their teachers since the Second World War. Others have neglected what was a major asset and allowed the status and quality of teachers to decline.
Internationally, it is clear that the expertise required of teachers is increasing. National curricula are increasingly ambitious about what teachers are expected to achieve. The old model of teaching, as something almost anyone can do well, will no longer do. The same OECD report points out that the best way to compete in the global economy is to provide all citizens with the quality of education formerly provided only to the elite.

Achieving this goal calls for a radically different model about who should teach, how they should be trained, and how they should be paid - a model of a highly educated profession, capable of defining standards for effective teaching, promoting development toward those standards and providing recognition for those who reach them. In other words, it calls for the teaching profession to be entrusted with the responsibilities of a profession; one of these is the responsibility to establish a standards-based professional learning and certifications system – a system that will be elaborated upon later in this paper.

The Challenge

The OECD report referred to earlier (OECD, 2010) points out that if education systems are to provide high-quality education to the broader population they need policies that will enable them to recruit their teachers from the top of the higher education pool.

We know from surveys in Australia that many of the abler graduates who would probably make very good teachers choose not to teach because of the status of teaching, but also because salaries reach a low ceiling after only eight or nine years of automatic increments – only 1.47 times the starting salary. The salary structure says, in effect, that after eight or nine years a teacher has got as good as they are ever going to get. It provides few incentives and little recognition for professional learning. Consequently, our career structure is a weak instrument for ensuring widespread use of successful teaching practices and lifting student learning outcomes.

If we want employing authorities to create a stronger market for successful teachers, the profession has to show that it can identify those teachers in ways that are valid, reliable and fair.

Getting serious about quality certainly means lifting salaries to levels whereby teaching can compete with other professions for the best high school and university graduates. But this will not be enough. While attracting good teachers is one thing, retaining them and ensuring their development to higher standards of teaching is another. The latter calls for much more fundamental reforms - the evolution of a new conception of teaching as strong and accountable profession – with career stages closely linked to evidence of increasing expertise in the classroom and in supporting colleagues.

As the OECD Report goes on to say:

... top graduates tend to find Tayloristic workplaces such as school systems using bureaucratic command-and-control systems to be unappealing options. To attract the best graduates to the teaching profession, these systems need to transform the work organisation in their schools to an environment in which professional norms
of control replace bureaucratic and administrative forms of control. Equally important, more professional discretion accorded to teachers allows them greater latitude in developing student creativity and critical thinking skills that are important to knowledge based economies; such skills are harder to develop in highly prescriptive learning environments. (p. 17)

The role of teaching standards is to create those "professional norms" that lie at the heart of effective schools.

The kinds of change that matter in education, in terms of both quality and equity, are those that lead to the widespread implementation of successful teaching practices – practice consistent with research and high standards of teaching. Dick Elmore (1996) estimated that in the US over the 20th century, there were many well-proven examples of good practice, but even the best of them was rarely adopted by more than 20 per cent of teachers.

Elmore asks, why is it so hard to 'get to scale'; that is, to ensure widespread implementation of good educational practices and curriculum materials? One of the main reasons, he argues, is that the teaching profession does not have well-established institutions or procedures for using research to identify and define standards for what its members should know and be able to do – normative structures related to good practice are weak. The culture of teaching tends to encourage a view of teaching in which 'everyone does their own thing' behind closed doors, practices that may only be loosely connected to research on teaching or profession-defined standards.

Elmore attributes the problem of 'getting to scale' with educational reforms to a belief common among teachers that good teaching is more a 'bundle' of personality traits than something most people can learn to get better at.

Getting to scale with educational reforms, Elmore argues, will depend on building new structures for defining and applying teaching standards in the teaching profession.

"The existence of external norms is important because it institutionalises the idea that professionals are responsible for looking outward at challenging conceptions of practice in addition to looking inward at their values and competencies."

(Elmore, 1996: 319)

Thus, the major challenge in improving teaching lies not so much in identifying and describing quality teaching, but in developing structures and approaches that ensure widespread use of successful teaching practices: to make best practice, common practice (OECD, 2005; Darling-Hammond & Baratz-Snowden, 2005; Elmore, 1996).

Once again, the OECD (2010) report makes the point well.

As a country’s goals move from the delivery of basic skills and rote learning to the delivery of advanced, complex skills, they increasingly need: more educated teachers, more professional forms of work organisation and accountability, and more developed forms of professional practice. These fundamental differences in
education system design have important ramifications for every aspect of the education system.

Progress along each of these dimensions can be made, at least to some degree, independently of the others—but not without some penalties. For example, nations attempting to promote complex learning and creativity without improving teacher quality will likely run into difficulties. Nations that try to improve teacher quality without professionalizing their work organisation are also likely face challenges.

(p.18)

Needed: Leadership at the level of the profession

This challenge calls for a new kind of leadership. While leadership at the level of each school and the school system is important, it is increasingly apparent that another kind of leadership is needed—one that operates at the level of the profession. Teachers look not only to principals and educational administrators for leadership in quality teaching.

In Australia, teachers are more likely to look to expert teachers in other schools who teach in the same field and to their professional associations for new ideas and examples of successful practice. We tend to ignore this reality over and over again. Politicians and senior administrators with new policies for improving schools come and go regularly. Teachers know this and close the classroom door. This will no longer do. The teaching profession needs to offer more stable alternatives to these waves of often conflicting reforms. Teaching has been a powerless profession. It needs its own leadership that can speak with authority and on equal terms with policy makers. I see teaching standards and the ability to apply them as a means for teachers to gain their credentials as a profession.

One service that school systems and school principals wanting to promote quality teaching clearly need is a system for recognising teachers who attain high standards. This has proved very difficult to create if left to individual schools and school principals, or different employing authorities. While there are plenty of good teachers, the teaching profession in most countries has not developed its own mechanisms for indentifying them and providing professional recognition.

In well-established professions, one of the main leadership functions is to build a framework for continuing learning from registration to advanced levels of standards, and systems for providing certification for members who reach those standards. Teaching needs such a system.

Teachers in several countries have demonstrated that they can develop and apply high teaching standards. Nearly 20 teacher associations in Australia have developed standards for accomplished teaching in their field and they want them to be used for teacher evaluation and recognition (E.g. see Australian Science Teachers Association, 2002). These include subject associations, level-specific associations such as the Early Childhood Association, support associations such as the Australian School Librarians Association and associations for school principals. Members of professional associations in Australia believe passionately that the profession should take the
primary responsibility for setting and administering professional standards. However, they recognise that this responsibility must be shared with employer and teacher unions, if teachers who gain its certification are to be rewarded financially and in career progression.

The National Board for Professional Teaching Standards in the USA, which was established in 1987 as an independent certification body, is arguably the most rigorous system for teacher evaluation in the world (National Research Council, 2008). It has operated for nearly twenty years and teachers play the major role in all stages from developing the standards to conducting the assessments of teachers’ applications for professional certification. It took over six years to develop its standards and assessment methods. Since it began offering certification in 1994, over 200,000 teachers have applied and nearly 100,000 have gained certification, about 3% of teachers in the USA.

Assuring Teacher Quality: The Importance of Policy Coordination

International interest in policies that promote teacher quality has increased markedly in recent years. Policies to promote teacher quality need to be coordinated operate at several levels. Achieving this has proved to be a major challenge in Australia as so many different agencies are involved.

The key components of quality assurance systems included policies and practices related to:

1. **Recruitment and selection:** The focus here is on policies and agencies a country has to monitor and assure the quality of entrants to teacher education. In particular, policies with respect to:
   a. Enrolment in teacher education
   b. Making teaching an attractive career option, and
   c. Subject matter requirements for admission to teacher education

2. **Accreditation of teacher education institutions:** The focus here is on policies and agencies to monitor and assure the quality of teacher education institutions and their programs.

3. **Entry to the teaching profession:** The focus here is on policies and agencies to ensure that graduates are competent and qualified before gaining certification and full entry to the profession.

4. **Advanced certification:** The focus here is on policies and systems to define standards for high quality teaching and to provide incentives for most teachers to attain those standards

These are the four main mechanisms by which countries seek to ensure the quality of future teachers.

A recent IEA study, the *Teacher Education and Development Study in Mathematics* (TEDS-M), shows a strong relationship between the strength of such quality assurance arrangements and the quality of graduates from teacher education programs, as measured by the tests of mathematical knowledge and mathematical content knowledge used in TEDS-M (Ingvarson, et al. forthcoming). Countries with strong quality assurance
arrangements, such as Chinese Taipei and Singapore, scored highest on these measures. Countries with weaker arrangements, such as Georgia and Chile, tended to score lower on measures of mathematical knowledge and mathematical content knowledge.

The TEDS-M study shows, for example, that countries such as Chinese Taipei and Singapore, which do well on international tests of student achievement (e.g. TIMSS; Mullis, et al., 2007) not only ensure the quality of entrants to teacher education. They have strong systems for reviewing, assessing and accrediting teacher education providers. They also have strong mechanisms for ensuring that graduates meet high standards of performance before gaining certification and full entry to the profession, and finally they provide relatively attractive salaries and working conditions - and career paths that reward evidence of reaching high teaching standards. The latter is the main focus of this paper.

This rest of this talk will focus on the fourth quality assurance mechanisms in the set of mechanisms listed above. It will describe what might be involved in establishing a standards-based professional learning and certification system for accomplished teachers.

Professional Certification

Certification refers to an endorsement by a professional agency that a member of that profession has attained a designated standard of practice. Certification is portable. It is not a job or position with a particular school.

Some form of advanced certification is common among most professions, but not teaching. However, as countries focus policy more on teacher quality, increasing numbers are introducing certification schemes for accomplished teachers. For example: the Chartered Teacher scheme in Scotland; the NBPTS scheme in the USA; the Excellent Teacher scheme in Chile; and the Excellent Teacher and "Advanced Skills Teacher" levels in England and Wales; the Master Teacher scheme in Singapore; and, now, the Highly Accomplished and Lead Teacher levels in Australia (Ingvarson & Kleinhenz, 2006; OECD, 2009).

Professional certification needs to be distinguished from “performance management” – annual teacher appraisal or reviews are examples. The main purposes of performance management are to ensure teachers fulfil their contractual duties and retain their current positions. Performance management and annual reviews are usually the responsibility of school principals in the Australian context.

In contrast, certification serves profession-wide purposes. A certification system makes decisions at key transition points in a teacher’s career, such as graduation, registration (entry to the profession) and advanced professional certification. These decisions are usually the responsibility of a profession-wide body; the General Teaching Council in the case of Scotland or the National Board for Professional Teaching Standards in the USA. Both purposes are important.

National professional bodies usually run certification systems, independent of particular employing authorities. In contrast, performance management systems are right and
properly the responsibility of employing authorities. Their function within the organisation is different from professional certification. Both are important, and can be complementary. In fact, performance management systems frequently incorporate arrangements that encourage relevant staff members to seek professional certification. However, when performance management systems are combined with competitive one-off bonus pay schemes, negative consequences for staff morale and relationships usually follow.

The benefits of certification schemes include making teaching more attractive to abler graduates by providing a basis for higher salaries, increasing incentives for professional learning, and more interesting career paths for accomplished teachers. Further benefits can multiply if schools can “free up” the expertise of such teachers and make it more accessible to other teachers - and if governments ensure an equitable distribution of such teachers across schools and school systems. In Australia, a further goal of certification is to encourage greater mobility of teachers across different states and school systems.

Professional certification is distinct from the rewards or recognition that a particular employing authority may choose to give to that certification. However, if governments and other employing authorities are to give financial recognition to certification they will have to be convinced that

1. the assessment methods for certification can discriminate between teachers who have attained the standards and those who, as yet, have not, and
2. that the certification system is encouraging most teacher to reach higher standards of teaching and use successful teaching practices.

The Concept of a Standards-based professional learning and certification system

The main components of a standards-based professional learning and certification system are:

- **High teaching standards** that articulate what teachers should get better at and provide direction for professional development over the long term.

- A rigorous, voluntary system of advanced **professional certification** based on valid methods for assessing teacher performance against the standards.

- **Staged Career paths** that provide recognition for good teaching and provide substantial incentives and for teachers to attain the standards for certification.

- An **infrastructure for professional learning** that enables teachers to gain the knowledge and skill embodied in the teaching standards.

These components can be conceptualised as four pieces of a jigsaw, whose interlocking character is captured in the figure below:
Taken together, the four components form a ‘system’ of interdependent and mutually supportive parts. Each component has its own functions and characteristics, but each is less effective without the others. If one is taken away the system loses its capacity to function effectively as an instrument for encouraging and recognising evidence of professional learning.

A rigorous standards-guided certification system aims to provide a sound basis for recognising and rewarding accomplished teaching performance. To be effective, certification should a career step that most teachers aspire to – something achievable by most teachers given opportunities for professional learning, not just an elite few.

A profession-wide certification system sits in contrast with many merit pay or performance pay schemes based on gain scores in student achievement rather than standards for accomplished teaching. It also contrasts with such schemes in that responsibility for operating such a system is usually entrusted to a national profession body.

As we shall see, countries vary in the extent to which they get all four components right. Some, such as Scotland, got the recognition part right. They ensured strong buy in from teacher unions, governments and employing authorities and all agreed to provide substantial incentives for teachers who gained certification (20% pay rise). However, they gave less attention to ensuring that the process for assessing teachers was rigorous. Consequently, the system has come into question recently as the economy has weakened and proponents are struggling to provide good arguments for retaining the system as governments seek to cut costs.
In contrast, some certification systems, such as the NBPTS in the USA, put a lot of investment into developing a system that met high psychometric standards (Ingvarson & Hattie, 2008). They provided convincing evidence that the assessment process was rigorous. However, because they work in a large federal system with local school management and industrial bargaining, they have struggled to persuade more than a small proportion of state governments and school districts to provide substantial salary recognition for professional certification.

However, in states and school districts do provide salary increases for National Board certification, such as North Carolina (12% pay rise), large numbers of teachers have applied - and the research indicates that the process has had powerful effects on their professional learning (NBPTS, 2001a; NBPTS, 2001b; National Research Council, 2008; Lustick, 2011; NBPTS, ).

An Emerging Professional Certification System

Australia is slowly moving toward a national certification system. Concern about the low status of teaching had grown to such a point during the 1990s that the Senate of the Australian Government instigated an Inquiry. The Senator's report, based on the Inquiry had one main theme – strengthen the teaching profession, especially its role in the development of standards. The Senators recognised that an effective education system needed career structures that kept good teachers close to students and provided incentives that led all teachers to pursue high standards. The Senate Report recommended that:

A system of professional recognition for teachers must be established, which is based on the achievement of enhanced knowledge and skills and which retains teachers at the front line of student learning. Such knowledge and skills should be identified, classified and assessed according to criteria developed by expert panels drawn from the profession. Education authorities should structure remuneration accordingly. (p. 7)

The Senators recommended that the Commonwealth Government should facilitate the development of a national professional teaching body with responsibility, authority and resources to develop and maintain standards of professional practice. The Inquiry report emphasised that this body should work closely with state and territory governments and peak teacher organisations.

After some false starts, the Council of Australian Governments (COAG), representing national, state and territory governments, finally agreed in 2008 to establish a National Partnership for Teacher Quality (COAG, 2008; Ingvarson, 2010). As part of the Partnership Agreement, a new national body was established with responsibility for creating a nationally consistent system for the certification of teachers – The Australian Institute for Teaching and School Leadership.

Central to these reforms is the development of a National Professional Teaching Standards Framework. In summary, the Framework consists of:
1. **Career stages**, which conceptualises a teaching career at four levels:

   **Graduate Teachers:** Graduate Teachers have approved qualifications and have met all requirements for employment as provisionally registered teachers.

   **Proficient Teachers:** Proficient Teachers are registered teachers who demonstrate professional knowledge, successful teaching practice and effective engagement with the profession.

   **Highly Accomplished Teachers:** Highly Accomplished Teachers are recognized by others as accomplished because they have a detailed and continually professional knowledge and are able to apply this to maximize learning.

   **Lead Teachers:** Lead Teachers are outstanding teachers who successfully lead initiatives that make a positive contribution to the quality of teaching and learning and well-being in their schools and professional community.

2. **Professional Domains and Standards**, which include:

   - Professional Knowledge
   - Professional Practice
   - Professional Engagement.¹

The National Standards Framework in Figure 1 is based on the assumption that good teachers steadily improve the quality and range of their professional knowledge and skill and consequently increase their value to schools. Figure 1 shows how the career stages are linked to increasing levels of professional knowledge and performance against the standards, and to increases in salary. (Evaluation of teachers for graduation is the responsibility of universities; evaluation of proficient or registered teachers is the responsibility of state teacher registration bodies; and AITSL will have responsibility for establishing the system for the certification of teachers at the Highly Accomplished and Lead Teacher levels, which will be voluntary).

¹ A detail description of the Framework can be found at aitsl.edu.au
Figure 1
A Standards-based Career Structure

- Provisionally registered teacher
- Proficient teacher
- Accomplished teacher
- Leading teacher
- School leader

Salary (Proposed)

Graduation standards
Registration standards
AT Certification standards
LT Certification standards

School leadership Standards
The following table shows how the career stages (i.e. certification levels) and professional standards are brought together to form the National Professional Standards Framework

The complete version of the Framework includes much more detailed elaborations of each of the standards (into 37 elements) and descriptors of each element at each of the four certification levels.

<table>
<thead>
<tr>
<th>DOMAINS</th>
<th>STANDARDS</th>
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<tbody>
<tr>
<td></td>
<td>CAREER STAGES/CERTIFICATION LEVELS</td>
</tr>
<tr>
<td></td>
<td>Graduate</td>
</tr>
<tr>
<td>Professional Knowledge</td>
<td>1. Know students and how they learn</td>
</tr>
<tr>
<td></td>
<td>2. Know the content and how to teach it</td>
</tr>
<tr>
<td>Professional Practice</td>
<td>3. Plan for and implement effective teaching and learning</td>
</tr>
<tr>
<td></td>
<td>4. Create and maintain supportive and safe learning environments</td>
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<tr>
<td></td>
<td>5. Assess, provide feedback and report on student learning</td>
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<tr>
<td>Professional Engagement</td>
<td>6. Engage in professional learning</td>
</tr>
<tr>
<td></td>
<td>7. Engage with colleagues, parents/carers and the community</td>
</tr>
</tbody>
</table>

In a report to the Business Council of Australia (Dinham, Ingvarson & Kleinhenz, 2008), we estimated that it would take about 10 years to move from the current teacher profile (where 75% of teachers are at the top of the current salary scale) to that set out in Figure 1, where about 40 per cent of teachers would be at the Highly Accomplished level and 10% at the Lead Teacher level. Therefore, salary costs would only rise gradually. At a stable equilibrium stage after 10 years or so, it is anticipated that about 10 per cent of teachers in a typical school would be Graduate Teachers, 40 per cent would be Proficient Teachers, 40 per cent would be Highly Accomplished Teachers, and about 10 per cent would be at the Lead Teacher level. (For schools where such a balance was difficult to achieve, special efforts, such as bonuses and allowances, would be needed to enable those schools to achieve an equitable balance of Accomplished and Leading Teachers.)
In effect, our proposal meant that over time the proportion of teachers who have moved above the top of the old incremental salary scale would rise from about 25 per cent to 50 per cent. Salaries for Accomplished Teachers would rise to twice the salary for Graduate Teachers, or about $100,000. Salaries for Lead Teachers would rise to two and a half times that for Graduate Teachers, or about $125,000. (These teachers would of course still be subject to performance management expectations operating in their school or school system). The estimated cost was between $5-6 billion.

The rest of this paper will deal briefly with the four components of a standards-based professional learning and certification system. First, the question of defining good teaching.

**Defining accomplished teaching for certification purposes**

The current literature on teacher evaluation reveals two contrasting conceptualisations of effective teaching - two different views about the main foundation on which teachers should be evaluated (Ingvarson & Rowe, 2008).

- Those that focus mainly on outcomes, such as the ability to produce higher than expected gains for students on standardised test scores (e.g. by using value-added models).
- Those that focus on teaching practices, such as the quality of the opportunities a teacher provides for students to learn, as defined by teaching standards.

This distinction is similar to the distinction Fenstermacher and Richardson (2005) make between _good_ teaching and _successful_ teaching.

*By good teaching we mean that the content taught accords with disciplinary standards of adequacy and completeness, and that the methods employed are age appropriate, morally defensible, and undertaken with the intention of enhancing the learner’s competence with respect to the content studied.*

*By successful teaching we mean that the learner actually acquires, to some reasonable and acceptable level of proficiency, what the teacher is engaged in teaching.*

Fenstermacher and Richardson point out that successful teaching, as defined above, depends not only on good teaching, but on at least three other conditions as well, such as:

1. willingness and effort by the learner;
2. a social surround supportive of teaching and learning; and
3. opportunity to teach and learn.

Successful learning depends on more than good teaching. The distinction between good teaching and successful teaching points to two different approaches to conceptualising and measuring _teacher quality_ – and two different views on that for which teachers should be held accountable: one in terms of student achievement on standardised tests, the other in terms of the quality of opportunities for learning that teachers establish in
their classrooms. Most certification systems for professions emphasise professional knowledge and ability to practice in ways consistent with current research and best practice, not outcomes (e.g. death rates in medicine).

Outcome measures or gain scores do not define good teaching. Goe et al., (2008) argues that the recent emphasis on outcomes-based definitions of teacher effectiveness is driven more by greater availability of student test data and technical developments in psychometrics, such as value-added models, than definitions of what effective teachers actually know and do. In contrast, the process view says we should first define what effective teachers know and do - and only then determine a technology for measuring it. (This is the main agenda for certification systems such as the NBPTS)

My reading of the research indicates that value-added approaches face increasing concern about their reliability and validity and rarely last (Baker et al., 2010; McCaffrey et al., 2003; Rothstein, 2009). This is especially the case when they are used to distribute annual bonus payments to teachers (as with the Teacher Incentive Fund in the USA). These concerns include the non-random assignment of students, the effects of other teachers, the effects of student characteristics (even when controlled), the effects of school policies, the non-random assignment of teachers and the appropriateness of outcome measures for the students and curriculum taught. Recent research also indicates that estimates of a teacher's effectiveness vary significantly from year to year, also throwing doubt on the accuracy of value-added schemes (e.g. Schoctet and Chiang, 2010).

I believe it makes more sense to evaluate teachers in terms of direct evidence about the skills they can demonstrate in their own classrooms. There is no mystery to defining the good teaching. This is what standards aim to do. Standards cover the full range of what good teachers are expected to know and be able to do to promote quality learning. And, therefore, the argument is, they provide a more valid basis on which to assess a teacher's knowledge and skill. They also provide more useful feedback about how a teacher might need to improve. They can provide teachers with clearer, long-term direction to their professional learning. They clarify the nature of the expertise that the profession expects its members to gain with experience.

**Developing standards for accomplished teaching**

Dictionaries give two inter-related uses of the term "standard": to *rally*, as around the banner, or flag (standard); and to *measure*.

As rallying points, standards aim to articulate core educational values that teachers seek to make manifest in their practice. Developers of professional standards will be guided by conceptions of learning and development; what they believe it means, for example, to educate a mind, to learn with understanding, and to think independently of the teacher. Standards, by definition, are statements about what is valued.

As measures, standards will not only describe what teachers need to know and be able to do to put these values into practice; they will describe how attainment of that knowledge will be assessed, and what counts as meeting the standard. *A standard, in the
latter sense, is the level of performance on the criterion being assessed that is considered satisfactory in terms of the purpose of the evaluation.

It should be clear from this definition that teaching standards are not fully developed or defined until it is clear how they are to be used to judge teachers’ knowledge and practice. When standards are used for professional certification, there are three essential steps in their development. These are:

1. Defining what is to be assessed – i.e. what do highly accomplished teachers know and do. (This is what the National Professional Standards for Teachers in Australia aim to do. These are often called content standards);

2. Developing valid and consistent methods for gathering evidence about what a teacher knows and is able to do in relation to the standards; and

3. Developing reliable procedures for assessing that evidence and deciding whether a teacher has met the standard. (This will depend on developing performance in addition to content standards).

The Olympic Decathlon provides a good illustration of the steps involved in developing a standards-based system for assessing performance. The concept behind the Decathlon is the great all-round athlete. The origins of the decathlon go back to early 20th Century when King Gustav V of Sweden told the American Jim Thorpe, "You, sir, are the World's Greatest Athlete".

People used to argue, apparently, about what makes a great all-round athlete, just as they still argue about what makes a good teacher. They realised the concept needed definition. What should all-round athletes be able to do? After a lot of debate they decided that the main elements of what constituted a great all-round athlete were strength, speed, stamina, endurance and perseverance. In other words, they defined what should be assessed - the content standards as it were - if one was to judge whether someone was a good all round athlete.

The next step was to reach agreement on how to judge the all-round athlete; how to assess strength, speed, etc. What should an athlete be asked to do to provide evidence that they are good all-round athlete? Ten events over two days were decided upon somehow, and the concept was thereby operationalised. On day 1 the events are 100 metres, Long Jump, Shot Put, High Jump, and 400 metres. On day 2, the events are 110 metres hurdles, Discus, Pole Vault, Javelin, 1500 metres.

A set of ten events was seen as a sufficient sample of evidence on which to make judgments about an athlete’s overall ability as an all-round athlete. Of course, the choice of events has to be somewhat arbitrary (e.g. why 100 instead of 200 metres?), but the events as a group must be selected to ensure that there is more than one kind of evidence for each of the elements (i.e. the standards). When evidence about each element is gathered in more than one way, the reliability of the assessment is increased. (This is a fundamental point to keep in mind when assessing teacher performance).
Finally, they needed to set the performance standards, which meant reaching agreement on the level of performance in each event that met the standard. Several “benchmark” levels have been set for each event in the Decathlon. (For example, if you run 100 metres in 10.395 seconds you earn 1000 points, 10.827 seconds earns 900 points, 11.278 earns 800 points and 11.756 earns 700 points, and so on for each event).

The overall level of performance is determined by weighting and combining the performance across all events. Performance standards not only need to specify how well an athlete must do in each event to qualify; they need to specify how well they must do across all events on the average to be rated a good all round athlete. Athletes must participate in the same set of events; there is no choice. However, a good performance in one event can compensate for a poor performance in another.

The Decathlon provides a useful example of what is involved in establishing a nationally consistent certification system. It is difficult to imagine that the decathlon would have gained respect if each country had been left to decide on its own events and performance standards. It is equally difficult to see how a respected system for the certification to highly accomplished teachers could emerge if each state or local education authority developed its own assessment methods, using the national standards only as a framework. A profession-wide certification system would need nationally consistent methods of assessment and scoring of those assessment tasks.

**Characteristics of Well-Written Standards for Assessment Purposes**

Standards need to be written at two levels: First at the generic level, where they identify aspects of teachers’ knowledge and practice that apply to all teachers, regardless of what or who they teach. Second, standards writers then need to move to deeper levels where they elaborate on what good teachers know and do in the many specialist fields that make up the teaching profession.

Teaching standards need to identify, not only what is common to all teachers; they also need to identify what is unique about good teaching in different fields of teaching. For example, what a teacher in the early primary years needs know about learning to read is very different from what a secondary science teacher needs to know about helping students to learn physics. What a primary teacher needs to know about child development is different from what a high school teacher needs to know about adolescent development. And so on.

If standards are to provide a clear guide for assessment, they need to be elaborated for each level and for each area of the school curriculum to reflect the specialised knowledge teachers need - and the different kinds of learning they are promoting. Generic standards need to be elaborated to identify what is unique about what, for example, English, history, mathematics and science teachers know and do. They need to differentiate between what good teachers know and do in the different specialist fields. This is just as true for primary teachers as secondary teachers. They are just as much specialists in their field as secondary teachers. What, for example, should a primary teacher know about recent research on learning to read? What approaches to
overcoming reading difficulties should they be able to demonstrate? Standards for primary teachers should provide a clear guide on such matters.

Well-written standards for teachers are grounded in a clear understanding of what counts as quality learning for students in particular subject areas or at levels of schooling. Kennedy (2010) points out that standards need to be driven by a vision of high quality learning of something, whether it is literacy, numeracy, art or science, and why it is important for students to learn it. This contemporary vision of what learners need to know and be able to do will often be found in national curriculum statements.

Take for example this extract from one standard from a set of standards for accomplished teachers developed by the Australian Science Teachers Association (2002):

**Standard:** Accomplished teachers of science engage students in scientific inquiry.

**Elaboration:** Their teaching reflects both the excitement and challenge of scientific endeavour and its distinctive rigour. They both teach and model practices that allow their students to approach knowledge and experiences critically, recognise problems, ask questions and pose solutions. They actively involve students in a wide range of scientific investigations... (p. 18).

This standard goes on at greater length to describe an important element of what counts as quality learning, in science classrooms.

This standard invites the teacher to show how they engage students actively in doing science in their school. What kind of assessment does it call for? Clearly, not some kind of national achievement test; it calls for methods of assessment that reflect the complexity of what the teacher is trying to do. It calls for evidence of what the students are doing and learning as a direct result of the teacher’s teaching.

Several features of a standard such as this are noteworthy. The first is that it points to a large, meaningful and significant “chunk” of a science teacher’s work – it is an example of the challenging educational aims they are trying to achieve over an extended period of time. It is not a micro-level competency, or a personality trait. It is a valid thing to ask a science teacher to do to show they are an accomplished teacher.

The second is that the standard is context-free; in the sense that it describes a practice that most agree accomplished science teachers should follow no matter where their school is. By definition, a professional standard applies to all contexts in which teachers work (which is not to say context does not affect practice). No matter where a school is, engaging students in scientific inquiry is likely to be regarded as a core responsibility of science teachers.

The third feature is that the standard is non-prescriptive about how to engage students in “doing science” and “thinking scientifically”; it does not standardise practice or force teachers into some kind of straightjacket. There are many ways to engage students in
scientific enquiry. While the standard identifies an essential element of good science teaching, it does not prescribe how the standard is to be met. In this way, the standard also allows for diversity and innovation. Teachers are invited to show how they meet this standard; how they engage students in scientific enquiry.

The fourth feature is that, as a standard, it points to something that is measurable, or observable. It is possible to imagine the kinds of evidence that a science teacher will assemble over time to show that they meet the standard, such as samples of students’ work or videotape segments over time provided by the teacher.

These features apply to standards in all teaching fields, whether primary or secondary or specialist subjects.

**Recent approaches to standards-based methods for assessing teacher performance**

It is important that it is the standards that drive the assessment methods chosen, rather than the other way around. We know that this is important in assessing school students. It is just as true when we come to assessing teachers. The standards should point to the kind of evidence that might be appropriate to gather about a teacher’s performance.

Teacher evaluation is a large field of study and it is only possible here to give a very brief overview of work in this area. The important point is that this field has reached the point where there is confidence that teachers’ performance can be assessed against standards in ways that are valid, reliable and fair (National Research Council, 2008; Ingvarson & Hattie, 2008). Perhaps more importantly, it can be done in ways that teachers are very comfortable with, and in ways that have significant effects on their professional development.

The best example of this is the certification system developed by the National Board for Professional Teaching Standards (NBPTS) in the USA. The NBPTS has developed assessment methods that provide two types of evidence:

1. **Demonstrations of teaching practice (by means of structured portfolio tasks with commentary and reflection)**
   
   These demonstrations are of three types:
   
   a) Samples of student work over time;
   b) Videotapes of classroom interaction; and
   c) Records of contribution to the school and professional community.

2. **Demonstrations of content knowledge and pedagogical knowledge**

   For this purpose, teachers attend designated assessment centres where their knowledge is assessed by means of computer delivered constructed response exercises.
The NBPTS assessment system builds on Shulman's five-year-long Teacher Assessment Project (TAP) at Stanford, which pioneered the development of a radical departure from previous approaches to teacher evaluation. Rather than attempt to identify standards as lists of competencies or duties, Shulman's team started by asking experienced teachers to identify tasks that accomplished teachers should be able to perform well; tasks that were fairly commonplace, that posed difficult challenges for teachers, and where exemplary teachers were likely to distinguish themselves from novices or those of lesser competence. These tasks formed the basis for creating assessment exercises that were capable of eliciting the kind of knowledge and skill that expert teachers possess.

Here is a set of portfolio tasks that illustrate how a primary teacher might be asked to undertake in applying for National Board Certification. (Full guidelines for these tasks are much more detailed.)

1. Provide evidence of a unit of work, with student writing samples, in which you have developed students’ writing ability over time.

2. Develop an interdisciplinary theme and provide work samples that show how you engage students in work over time that deepens their understanding of an important idea in science.

3. Provide a videotape and commentary illustrating how you create a climate that supports students’ abilities to understand perspectives other than their own.

4. Provide evidence, through a videotape, written commentary, and student work samples, of how you have helped build students’ mathematical understanding.

There are several things to note about these tasks. First, they are developed by primary teachers. They regard each task as a valid thing to ask them to do – as a way of providing evidence relevant to the standards. Although complex, these are authentic tasks; they are based on what most accomplished teachers normally do.

Second, as a group, they provide evidence of teaching across at least four of the main areas of the primary school curriculum – literacy, mathematics, science and social studies. This increases the validity and reliability of the assessment. The tasks cover most of what primary teachers are contracted to teach.

Third, in contrast to merit pay schemes based on student test scores, they focus on what the students are doing and learning as a result of the conditions for learning set up by the teacher. Fourth, while they provide a common structure within which teachers have freedom to show how they meet the standard in their context, they do not prescribe how the teacher should teach or meet the standards.

Few would argue that these are not valid things to expect an accomplished primary teacher to do well. Research indicates that, in the process of analysing their practice against the standards and preparing their evidence, teachers improve their practice.
Effects on Professional Learning

Unlike many traditional types of teacher evaluation, the genius behind this work was to place the teacher whose performance was being assessed in the *active* position of being asked to show how they meet the standards in their school context. This was the reverse of the *passive* position typical of traditional approaches to teacher evaluation such as classroom observations, student ratings forms, supervisor reports and national tests of student achievement.

When teachers engage with these new forms of assessment such as portfolio tasks based on videos and student work samples over time, they necessarily become engaged in the kind of analyses and reflections on their own practice that are consistent with the most effective modes of professional learning (Hawley & Valli, 1999). A survey of 10,000 teachers who had been through the NBPTS certification process found that 92 percent reported the process made them better teachers, and 89 percent said it equipped them to create stronger curricula and better evaluate student learning. Nearly all said it was the best PD experience they had ever had.

National Board Certification is a “transformative experience” for many teachers, and research indicates that they often apply in the classroom what they learn from the certification process—whether they achieve certification or not. The certification process, in itself, improves teachers’ ability to improve student learning. Research also shows that teachers who gain professional certification are significantly more likely to remain in teaching. Independent studies show students of National Board Certified Teachers do better on standardized tests than students of non-NBCTs. There is increasing evidence that shows when groups of teachers within the same school prepare for certification together it can make a significant improvement to student learning outcomes in disadvantaged schools.

Recognising and Rewarding Professional Certification

Debate has raged about how to strengthen links between pay and performance for teachers. The best reason for doing so is to improve incentives for teachers to develop their practice to the point where they can demonstrate they have attained high professional standards. The worst reason is to "incentivise" teachers through one-off bonus payments to focus exclusively on improving scores on national tests, which has been happening with the Teacher Incentive Fund in the US.

A certification system needs to provide strong incentives if it is to succeed in engaging most teachers in professional learning that leads to high standards. A critical issue in

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2 [http://www.nbpts.org/resources/research](http://www.nbpts.org/resources/research)

redesigning teacher pay system, therefore, is to understand the kind of incentives that make a difference to teachers and their teaching (Johnson, 1986). Questions such as the following need to be addressed.

- What role do incentives play in the quality of teaching?
- What are the incentives that really motivate teachers?
- What kind of incentive system is most likely to lift the quality of teachers and teaching?

The past century is littered with failed merit pay schemes (Johnson, 1984; Murnane and Cohen, 1986; Ingvarson et al., 2007). A number of major studies have been completed in the past year or so showing that one-off bonus pay schemes do not change teacher practices or improve student achievement in the long term (Springer et al. 2009; Springer et al. 2010a; Springer et al. 2010b; Marsh et al. 2011; Glazerman & Seifullah, 2010). They do not promote professional development and better teaching in the way that standards-based certification systems have been shown to do (National Research Council, 2008).

As Daniel Pink points out (Pink, 2009), bonus schemes work for simple routine tasks. However, for tasks requiring even rudimentary cognitive skill, it turns out that the higher the incentive, the worse the performance. The secret to high performance is not extrinsic rewards and punishment but the intrinsic drive to do things better because they matter. Pink identifies three important “drivers” or incentives:

1. Autonomy - the urge to direct our own lives,
2. Mastery - the desire to get better at something that matters, and
3. Purpose - the desire to do something in the service of something important – larger than ourselves.  

I think Pink’s work on incentives is very relevant to discussions about teachers’ work and the kind of incentives that matter to teachers. However, I would add one more incentive to his list, based on many interviews I conducted with teachers who had been through the process of NBPTS certification – and that is the power of professional recognition. The effects on their self-esteem and sense of personal agency were palpable. Most teachers want to teach well – to have a sense of increasing efficacy. They also crave public recognition for good teaching and greater understanding of the complexity of good teaching. There are plenty of teachers who have reached high

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4 For entertaining talks by Daniel Pink see  
http://www.youtube.com/watch?v=u6XAPnuFjJc  
http://www.youtube.com/watch?v=Hh4fi5oJlnM
standards, but our current systems for providing them with recognition for their achievement are inadequate.

Bonus pay schemes do not work in professional organisations where success depends on judicious use of professional expertise and values in dealing with complex, non-routine problems. If ever there was such a job, it is teaching. The inherently competitive nature of bonus pay schemes also undermines the openness and collaboration characteristic of successful schools.

In contrast, when schools and teachers support each other to gain certification it leads to the most effective method of professional learning. The research indicates that a profession-wide system for providing certification to highly accomplished teachers would have a greater impact on children’s education than bonus payments based primarily on value-added measures based on national tests of student achievement.

Countries that are doing well in international assessments of student achievement are not doing it because they have bonus pay schemes. They are doing it because they offer salary progression and working conditions that attract the ablest graduates – and keep them close to the classroom (Barber & Mourshed, 2007). Salaries rise to more than double the starting salary in Scotland, Singapore and Taiwan – and three times in Korea. Performance pay schemes that link teachers’ professional learning with rewards through reformed career structures are proving more durable than bonus pay schemes and are attracting increasing support (e.g. Johnson & Papay 2010).

**Concluding Remarks**

A standards-based professional certification system is, of course, only one piece in a set of policies a country needs to promote the quality of its teachers and teaching. I hope this paper has served to indicate that, potentially, it is an important piece. The evidence indicates that a certification system provides a sounder basis for evaluating and rewarding good teaching than competitive bonus pay schemes. However, it needs to be recognised that establishing such a system is a complex enterprise, politically and technically - it should be regarded as a 10 to 20 year endeavour.

I understand that Brazil has been trying to create standards for a career path based on credentials and new assessments that cover both content and pedagogy. In pursuing this course, I suggest close attention be given to all the components in a standards-based professional learning system.

In summary, if a standards-based certification system were working well, what would we see?

- Teachers would regard the standards as challenging and worth pursuing as a guide to their professional learning.
- It would lead most teachers to seek professional learning experiences that helped them reach accomplished teaching standards and improve student learning outcomes.
- Teachers would regard the assessment methods as valid, reliable and fair.
• Employing authorities would regard certification as a reliable basis for recognising accomplished teachers and providing salaries and career paths that retained the best graduates.
• It would lead teachers who could not attain the standards to consider other occupations

These are the central characteristics of a profession-run certification system.

Such a system is consistent with recent OECD reports on building a high-quality teaching profession referred to earlier (e.g. OECD, 2009, 2010, 2011).

Where their education systems do not yet match the best-performing systems, they might directly adapt the methods used by Finland, Canada and the East Asian countries. They will be in a position to recruit a substantial proportion of their teachers from among the best university students in the country and offer them a lot of discretion in the way they do their jobs. They will be looking for ways to build the capacity of their systems and support their teachers. Their accountability systems will tend to the professional model, not the administrative model. Rather than regulating and directing what goes on in the school, they will focus on devising incentives and support systems that will align the interests of the school faculty with the public interest. (OECD, 2010)

The same OECD report goes on to suggest that

there may be a relationship between the degree to which the work of teaching has been professionalised and student performance. Indeed, the higher a country is on the world’s education league tables, the more likely that country is working constructively with its unions and treating its teachers as trusted professional partners. . . (p. 240)

A professional certification system is consistent with the idea of entrusting teacher with the responsibilities of a profession - it strengthens the role that teachers and their organisations play in

• Standards development – in defining what the profession expects its members to get better at.
• Developing methods whereby teachers can demonstrate how they meet the standards
• Operating systems for assessing teacher performance and providing certification to teachers who meet the standards
• Developing and operating professional learning programs to help teachers meet the standards.
I will conclude with a summary of lessons learned from past attempts in Australia and other countries to develop certification systems for identifying and rewarding accomplished teachers:

1. Get the incentives right if you want most teachers to engage professional learning – use professional certification linked to career progression rather than one-off bonus payments.
2. Ensure that the pathway to advanced certification is a broad pathway expected of all teachers, not just an elite few.
3. Make sure the system is the responsibility of an independent, national body representative of all key stakeholders.
4. Mainstream professional certification – that is, make achieving each certification stage a condition for being eligible to apply for the next (i.e. Lead Teachers and School Principals should have gained certification as accomplished teachers.)
5. Do not confuse professional certification and local performance management.
6. Recognise that teaching is made up of many specialist field - elaborate the standards and provide certification for accomplished teachers in each field.
7. Base assessment on evidence of what students are doing and learning as a direct result of a teacher's teaching, rather than value-added measures from national tests.
8. Conduct the research needed to ensure the certification process meets high psychometric standards for validity and reliability before going to scale.
9. Ensure that assessors are teachers who work in the same field of teaching and are trained to high levels of reliability.
10. Work hard to ensure that employers come to trust the certification as a measure of accomplished teaching and use it as the basis for higher salaries and career advancement.
11. Build a new professional learning infrastructure, within and across schools and in collaboration with universities, to support teachers preparing for certification.

**Bibliography**


