



# Perspectives on Professional Development in Australian Education: Some Realities of Standards-Based Professional Development

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## ABSTRACT

This article addresses the adoption of Standards-based professional development (PD) in contemporary Australian education, through consideration of three different areas of professional practice: mathematics teaching, early childhood education and care (ECEC), and school leaders' legal literacy. The article sets out the policy basis for Standards-based PD in education, in particular the development of the Australian Professional Standards for Teachers and Principals by the Australian Institute for Teaching and School Leadership, as well as recent research on PD. A framework for effective PD, which draws on both policy and research, is set out as a model through which Standards-based PD in the three areas of practice is examined. Standards-based PD in mathematics teaching, which has had, and continues to exhibit, close connections with the relevant professional population through their peak representative body, is seen to satisfy the criteria for effective PD in terms of being continuous, relevant, collaborative and future-focused. The PD arrangements within the ECEC sector, which have been well-resourced and supported at the highest policy levels, similarly meet the criteria. The lack of systemic PD on Education Law for school principals is cause for concern.

**Keywords:** professional development, professional standards, teachers, principals, early childhood, educators

## INTRODUCTION

This article arose from recognition of the impact of professional Standards on various sectors of the Australian education field, as well as a perception of important differences in the manner by which Standards-based professional learning is being implemented. It presents a contextual background for the consideration of Standards-based professional development (PD) in Australian education, through an examination of the policy framework supporting the implementation of professional standards, as well as trends in the literature of professional learning in education. The paper then goes on to provide a descriptive review of Standards-based PD in three areas of contemporary Australian education: mathematics teaching, early childhood education and school leaders' legal knowledge. This triptych of

differing perspectives provides valuable perspectives on the central issue of Standards-based PD in education, from the viewpoints of differing populations of educators (teachers, early childhood educators and school leaders), differing aspects of the relevant Standards (subject-based, sector-based and specific skill-based), and differing maturity of the professional learning structures (well-advanced, commencing and largely unaddressed). This discussion of Standards-based PD is addressed through a literature review approach, the findings of which are analysed using a new conceptual framework based upon a synthesis of policy and literature. The commonalities and distinctions from the three highlighted sectors are then examined to produce insights into the “mixed scorecard” (Australian Government Productivity Commission, 2012, p. 228) of Standards-based PD across the Australian education spectrum, which conclusions may have resonance for other educational systems considering the institution of a Standards-based PD policy.

## BACKGROUND

### Standards-based PD policies

There is a moderately long-standing tradition in Australia, at the national level, of attempting to ‘professionalise’ education and educators (Cordingley, 2012; Gore & Morrison, 2001; Schleicher, 2011). Indeed, as long ago as 1973, a major national report on education, the ‘Karmel Report’, (The Interim Committee for the Australian Schools Commission, 1973) advocated that teachers be afforded the responsibilities of a profession -

A mark of a highly skilled occupation is that those entering it should have reached a level of preparation in accordance with standards set by practitioners themselves, and that the continuing development of members should largely be the responsibility of the profession (p. 123), establishing an explicit link between PD, professional standards, and quality education.

Some 40 years later, a national policy framework has been set in place which brings together professional Standards and PD for the education sector, with the aim of improving the quality of Australian education in general, and student learning outcomes in particular (Australian College of Educators, 2001). Although this policy “infrastructure” (Ingvarson, 1998, p.129; see also Ball & Exley, 2010; Kelly, 2009; Lingard, 2013) of a standards-based PD system operates from the school level and builds professionalism upwards, its objectives may be more clearly observed from a top-down perspective. A model of the system is at Figure 1.

The overarching policy statement currently guiding the development of Australian education is *The Melbourne Declaration of Educational Goals for Young Australians (The Melbourne Declaration)* (MCEETYA, 2008), which sets out dual goals for educational improvement: firstly, that “Australian schooling promotes equity and excellence”; and secondly that “All young Australians become: successful learners, confident and creative individuals, and active and informed citizens” (MCEETYA, 2008, p.7). Key initiatives and strategies to support the achievement of these goals include support for quality teaching and school leadership, and strengthening early childhood education (Buchanan and Chapman, 2011), which three areas provide the general focus for this article.

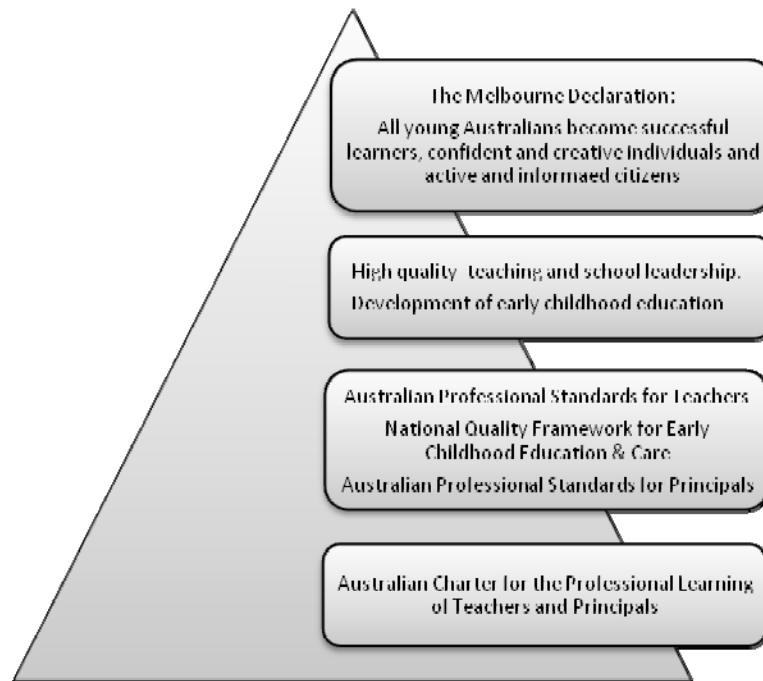


Figure 1: Policy context of Australian standards-based PD system. Adapted from the Australian Institute for Teaching and School Leadership (AITSL) (2012).

These initiatives have been taken up by AITSL, which developed the *National Professional Standards for Teaching* (AITSL, 2010), as well as the *National Professional Standards for Principals* (AITSL, 2011) which Standards have now been retitled as *Australian Professional Standards* (AITSL, 2012a & b). Based on a Productivity Agenda Working Group discussion paper (2008), and other reports (see for example The Boston Consulting Group, 2008), the National Quality Framework for Early Childhood Education and Care has brought the early childhood sector under the umbrella of national educational policies, and a set of Standards (COAG, 2009) has been adopted for the sector. This national structure of generic educational standards has supported the development of numerous targeted standards in specialist fields, including, amongst others, curriculum area-based, particularly in mathematics and science, and level specific standards as with early childhood (Ingvarson, 2011).

Whilst the Australian Standards framework provides a “benchmark for professionalism” (Australian Council of Educators, 2001, p.3) in education, it is suggested that their value to educators lies in engagement with those standards as a strategy for continuing PD (National Reference Group for Teacher Standards, Quality and Professionalism, 2003). This highlights one of the significant, and most recent, policy elements of Australia’s system for Standards-based PD, *The Australian charter for professional learning of teachers and school leaders* (The Charter) (AITSL, 2012c). The Charter affirms the importance of professional learning by teachers and school leaders to improve their individual professional practice and their school’s effectiveness, resulting in improved student learning, engagement and well-being (AITSL, 2012c), thus situating the PD system within the context of *The Melbourne Declaration* objectives. Further, its emphasis on the relevance, collaborative nature and forward focus of education PD aims to equip individuals and learning communities for work toward improvements in student learning.

## Characteristics of effective professional development

Throughout Australian education, PD is currently recognised as a critical element for improvement of the quality of educational practice, not only for teachers and their teaching, but also for school leaders and other education professionals. However, seminal studies have suggested that a disjunction may exist between educational knowledge and educational practice, due to a paucity of information on effective PD constructed in varying contexts (Loucks-Horsley, Hewson, Love, & Stiles, 1998). As a consequence, there has been an increased interest in research that highlights the features of effective PD. A considerable body of literature has developed in this area, containing a mix of large- and small-scale studies, intensive case studies of classroom teaching, and evaluations of effective PD in terms of pre-service preparation as well as in-service experiences.

For example, Boyle, While, and Boyle (2004) have suggested that traditional approaches to PD, such as short workshops or conference attendance, whilst fostering teachers' awareness and interest in deepening their knowledge and skills, appear insufficient to fundamentally influence what teachers teach or how they teach. Other researchers similarly criticise traditional approaches, and advocate for more continuous, relevant and collaborative models (see, for example, Huber & Hiltman, 2011). A large scale study by Garet, Porter, Desimone, Birman, and Yoon (2001) of mathematics and science teachers identified the characteristics of effective PD, with findings that:

- Sustained and intensive PD is more likely to have an impact than shorter sessions.
- PD that focuses on academic subject content, gives teachers opportunities for "hands-on" work, and is integrated into teachers' daily practices, is more likely to enhance knowledge and skills.
- Collective participation and coherent activities play a role in effective PD.
- Communication among teachers that renews their emphasis on the profound importance of subject-matter focus appears to be an indicator of high-quality PD.
- Emphasis should be given to characteristics that research shows foster improvements relevant to the teaching context.

Further, recent research has drawn an explicit connection between effective professional developments and relevant professional standards (AITSL, 2012a, b & c; O'Meara, 2011), for example, the *Australian Professional Standards for Teachers* are designed to guide professional learning in order to facilitate the improvement of teachers' practice and contribute positively to the profession (AITSL, 2012a). The combination of PD for all educators with the framework of professional Standards is presented as a means to enhance and improve the profession of education throughout Australia. With this capacity, education is now seen to have the credentials to run its own infrastructure for professional learning, directed to enhancing and rewarding attainment of professional standards through professional development (Ingvarson, 1998).

The *Charter* (AITSL, 2012c) provides a policy foundation for Standards-based PD, and proposes that such professional learning will be most effective, firstly, when it is relevant, collaborative and future-focused, and secondly, when it supports teachers to reflect on, question and consciously improve their practice. It further proposes that these characteristics of effective professional learning should be considered when selecting, designing, reflecting on or evaluating PD.

In light of the research in this area it is suggested that the present situation regarding PD in the Australian education sector reveals a fundamental link between the Standards developed for educators and effective PD. This is illustrated in the framework set out in Figure 2.

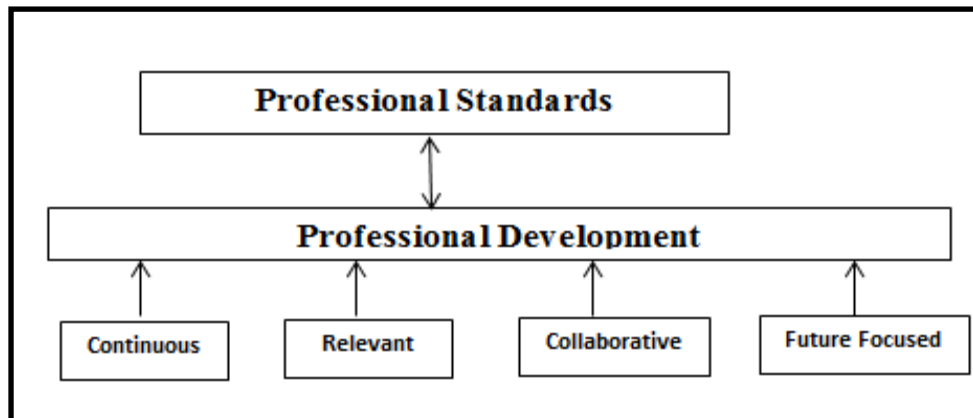


Figure 2: Framework for effective Standards-based PD.

This framework reflects both policy developments and current literature regarding Standards-based PD. It is utilized as a theoretical lens in the remainder of this paper, to examine the status of Standards-based PD in various areas of Australian education.

To clarify the components of the framework, the following explanations of the terms are offered -

- *Professional Standards* - Endorsed national Standards “that can guide professional learning practice and engagement, facilitate the improvement of [educator] quality and contribute positively to the public standing of the profession” (AITSL, 2010, p.1).
- *Professional Development* – Activities that develop professional skills, knowledge and expertise, designed to result in changed professional practice for the benefit of students (Timperley, 2011).
- *Continuous* - Sustained, on-going and characterised as a support for improvement in teachers’ professional practice (Friedman & Phillips, 2004; Hea-Jin, 2007).
- *Relevant* - Learning which addresses and adapts to the challenges faced by educators in improving student learning, engagement with learning and wellbeing (AITSL, 2012c)
- *Collaborative* - Where educators are connected with their colleagues. More than simply working together, they solve challenges that are important to improve teaching practices and student outcomes (AITSL, 2012c).
- *Future-focused* - Focused not only on improving existing practice, but also assisting educators to understand the theories behind what practices work in different situations, and when and how to apply a broad range of strategies to improve students outcomes (AITSL, 2012c).

## STANDARDS-BASED PD IN THREE AREAS OF EDUCATION

This part of the article examines the application of Standards-based PD in three different areas of Australian education: mathematics teaching, early childhood education and school leaders’ legal literacy, in order to gain some sense of the degree to which Standards-based PD has been adopted, and whether or not the practice in that area meets the requirements for effective PD. The framework

illustrated in Figure 2 is used as a lens for examining the effectiveness of systems-based PD in these different contexts.

### **Australian mathematics education**

In the context of the generic national teaching standards, (AITSL, 2012a), the Australian Association of Mathematics Teachers (AAMT) developed the Standards for excellence in teaching mathematics in Australian schools (2006), which represent a consensus view by the profession, and describe the knowledge, skills and attributes required for good teaching of mathematics. The AAMT Council – the peak representative body for Australian mathematics teachers - encourages all teachers of mathematics in Australia to aspire and work towards PD activities aimed at targeting those Standards (AAMT, 2006). The Standards for excellence (2006) draw an explicit link between teachers' involvement in continuing PD, and the enhancement of their knowledge, understanding, and skills in teaching (AAMT, 2006).

The *Charter* suggests that PD for teachers should be relevant, collaborative and future focused (AITSL, 2012c). As the mathematics teachers' standards operate concurrently with the general national teachers' Standards, it might have been expected that these characteristics would have been similarly reflected in the Standards for excellence (2006). That was not the case. Nevertheless, a number of studies in mathematics teaching PD in Australia have addressed these characteristics in various ways (see, for example, Goos & Bennison, 2008; Miller & Glover, 2007; Muir, 2010; Muir & Beswick, 2007). These studies have expressed support for PD which is continuous, relevant, collaborative, and future focused (although the final factor receives somewhat less emphasis). It should be noted that each specified characteristic of effective mathematics teaching PD was not identified in each individual study, but rather the characteristics were supported by the body of research as a whole.

A comprehensive literature review on principles of effective professional learning for mathematics teachers by Muir and Beswick (2007) indicated that PD is more likely to be effective if it provides mathematics teachers with continued opportunities to deepen and expand their content and pedagogical knowledge, and is grounded in teachers' learning and reflection on classroom practice. In this regard, research suggests that PD with longer duration is more likely to contain the learning opportunities necessary for teachers to integrate new knowledge into their teaching practices (Penuel Fishman, Yamagushi & Gallagher, 2007). Miller and Glover (2007) supported this claim following their examination of the approaches to professional development for staff in mathematics departments in seven secondary schools when interactive whiteboards were provided under an Australian government-funded project. That study found clear evidence that the effective use of interactive whiteboards in teaching required continuing PD, thus reinforcing the notion that effective PD for mathematics teaching needs to be continuous and relevant to teachers' classroom practices.

The second characteristic of effective PD is relevance - whether or not it addresses the challenges teachers face in improving student learning, engagement with learning, and well-being. PD that is aligned with practice helps teachers to focus on what students are expected to know and the nature of common misconceptions held by students (Penuel et al, 2007). The argument has been made by Loucks-Horsley et al. (1998) that much PD in the past in Australian schools has been driven, not by teaching practices and subject matter issues, but rather by concerns generally regarding adult growth and development. However, it appears that PD currently available to Australian mathematics teachers does tend to be relevant to teaching practices. An example is available in the study reported by Goos and Bennison (2008) which involved 400 secondary teachers in Queensland. They found a majority of participants (more than 80%) indicated that they had participated in PD activities regarding the use of technology to teach mathematics – which was relevant to their classroom practices.

The third characteristic of effective PD is collaboration, whereby teachers assist teachers to solve the challenges that are most important to the improvement of classroom instruction and student outcomes. Research by Muir (2010) suggests that much of the mathematics PD documented in Australia focuses on development of teachers' mathematical pedagogy through their involvement and collaboration. As noted by Penuel and colleagues (2007) in their review of evidence from a wide range of studies, PD that makes extensive use of teacher collaboration in creating and redesigning is particularly successful in promoting teaching.

The last characteristic for effective PD is that it be future-focused. Although much of the research cited in relation to mathematics teaching PD has discussed the importance of providing, preparing and assisting teachers with PD based on teachers' practical problem of classroom practices, little mention has however been made of PD being "future-focused" as advocated by the *Charter* (AITSL, 2012c, p. 6).

In summary, contemporary research links professional Standards to professional development activities for effective teaching of mathematics in Australian schools. Through their professional organization, mathematics teachers have developed their own curriculum-based Standards which operate in conjunction with the generic Australian Standards for Teachers (AITSL, 2012a). Current research in relation to PD surrounding mathematics teaching supports the notions of continuity, relevance to classroom activities, and collaboration, in order to improve teaching effectiveness. The research, however, places significantly less emphasis on the characteristic of future focus in Australian mathematics teaching PD.

### **Professional development in early childhood education and care (ECEC)**

ECEC is recognised as having particular PD needs due to the nature of its workforce, the variability of ECEC locations and contexts, and the range and level of standards that are applied to the sector because of the vulnerability of the children that it serves (Raban et al., 2007). Those charged with the education and care of children birth to eight years hold differing levels of qualifications, are from diverse backgrounds, and may be characterised by their competing philosophies with respect to educating and caring for young children (The Boston Consulting Group, 2008; Raban et al, 2007). The ECEC field in Australia and internationally has faced a continued press for professionalisation of its workers due to the growth of accountability measures introduced by governments and endorsed by parents (Logan, Press & Sumsion, 2012). The term 'educator' has been introduced in Australia to reflect the professionalisation of the field, and responds to the call (Menmuir & Hughes, 2004; OECD, 2006) to frame the ECEC role and background typologies with a single term.

The recent National Quality Framework (NQF) for services for children 0 – 5 years provides a set of quality standards, a learning framework that highlights outcomes for children, and laws and regulations. Both levels of Australian government have invested substantially to create NQF Standards-based PD events, and distribute NQF-based resources (see for example the Australian Children's Education and Care Quality Authority website <http://acecqa.gov.au/resources-and-templates/>; and the National Professional Support Coordinator Alliance <http://www.pscalliance.org.au/>). An evidence-based PD guide for child care staff (Russell, 2009) was distributed to services following the launch of the (NQF) Early Years Learning Framework (EYLF) (DEEWR, 2009). The PD guide, based on a research report by Waniganayake et al. (2008), was designed for several service types (long day care, family day care, occasional care, outside school hours care and in-home care), and to accommodate the diverse staffing mix in these services. While a wide range of approaches to PD were described in the guide, none were

mandated; instead, services were advised to choose approaches which best suited their context and their people (Russell, 2009).

The ECEC sector has a long history of research into PD. Principles and strategies for PD in ECEC developed from the 2009 PD guide (DEEWR, 2009) reflect the Framework for Effective Standards-based PD, at Figure 2. The demand for relevant and continuous PD is supported by ECEC PD studies which recommend that in-service PD needs to be targeted specifically toward ECEC educators (Thornton, Crim & Hawkins, 2009), and move beyond singular topic-driven workshops or occasional readings of articles (Lee & Ginsberg, 2009). Lee and Ginsberg (2009) also add that regular reading of professional journals or books, taking courses and participating in conferences will ensure that ECEC teachers remain updated on research and best practices. The need for currency of knowledge is reinforced by Algozzine et al. (2011). PD opportunities that focus on collaboration through networking and peer interactions, online and face-to-face, have been outlined in research by Gupta and Daniels (2012), Brown, Knoch, Edwards and Sheridan (2009), and in ECEC PD research summaries (Maxwell, Field & Clifford, 2006; Sheridan, Edwards, Marvin, and Knoche, 2009). These studies reinforce a communities-of-practice model of PD. The Early Childhood Australia (ECA) website, Facebook, forum, and twitter conversations are current examples of ECEC communities-of-practice that focus on educators engaging in professional conversations around NQF-related topics of interest (see associated links at <http://www.earlychildhoodaustralia.org.au/nqsplp/>). Heikka and Waniganayake (2011) comment on the pedagogical leadership role of educators in ECEC services as a collaborative, capacity-building approach to site based PD. Others, including Irvine and Price (2011), have generated strategies such as the professional conversation to enhance the communities-of-practice model. Futures orientation in ECEC PD has been identified by Vesay (2008) whose research highlights the need for educators to regard themselves as life-long learners.

### **School leadership**

It has become clear in recent years that the roles and responsibilities of school leaders are increasingly complex and challenging (Russell & Cranston, 2012), requiring the PD of school leaders to become a priority. One of the responsibilities warranting particular consideration in terms of principals' PD is that of legal literacy. Research suggests that that some practising school leaders may not have a sound understanding of 'Education Law' - the laws "that affect the operation of schools and the work of educators (Imber, van Geel, Blokhuis & Feldman, 2013, p. 1). The point has been recently made by Trimble, Cranston and Allen (2012), that -

While some principals ... have had some (mainly ad hoc) support in developing their education law knowledge, in an increasingly litigious world, the lack of attention by school systems and schools to the legal knowledge (or access to legal knowledge) required by principals is potentially problematic (p. 50)

There have been two major studies in Australia concerning the Education Law knowledge held by school principals. Seminal research undertaken by Stewart (1996) examined the legal knowledge held by government school principals in Queensland, the sources of such knowledge and its implications for legal risk management in schools. A later study by McCann (2006) examined the education law understandings of Catholic school principals, also in Queensland. Both researchers concluded that the school principals who participated in their studies had low Education Law knowledge. A further, small-scale study of school principals and education law conducted in Tasmania in 2011 (Trimble, Cranston & Allen, 2012) similarly found participants possessed a limited understanding of Education Law. Given the level of existing knowledge found among some Australian school principals regarding legal issues, and the significant impact which may flow from educational decisions which are not legally sound (in terms



of legal liability and educational quality) the time may be considered ripe for development of “purposeful professional learning for school leaders” (AITSL, 2012b, p.6) in relation to education law.

The need identified in the research literature for school principals to acquire an accurate understanding of Education Law is bolstered by the Australian professional standard for principals (AITSL, 2012b). The Leadership – Knowledge and Understanding component of the integrated model addresses legal knowledge in the following terms:

[Principals] have knowledge of relevant national policies, practices and initiatives as well as relevant federal and state legislation, agreements and policies. They understand the implications of child safety, health and well-being, human resource management, financial management and accountability and other legislative and policy requirements in relation to serving their community and broader society. (p. 7)

That leadership requirement explicitly interacts with the fourth Professional Practice – Leading the Management of the School, which acknowledges the need for “management systems, structures and processes to work effectively in line with legislative requirements” (p. 10).

Whilst there is no direct research data available evidencing the level of PD support previously provided to Australian school principals on legal matters, research on Education Law and the principalship (McCann, 2006; Stewart, 1996; Trimble, 2012) has rated PD as a significant source of participants’ Education Law knowledge, and has noted participants’ desire for more PD on Education Law matters.

The second author can report anecdotally that ad hoc Education Law PD is being conducted within the various State and Territory jurisdictions by at least one commercial training provider, as well as through the Australia and New Zealand Education Law Association. Whilst this training presents content of an excellent standard, it does not exhibit the characteristics linked to effective PD; it is not continuous, collaborative or future-focused. It certainly addresses issues which arise on a regular basis within Australian schools; however it is not directed toward any need identified by the principals themselves.

In mid-2012, the Australian Commonwealth Government, through AITSL, launched a “Flagship Professional Learning Programme: Local Leadership” (<http://www.aitsl.edu.au/school-leaders/local-leadership/local-leadership.html>), aimed at empowering school leaders to better make decisions for their schools at a local level, which ties in closely with the Federal policy initiative for greater school autonomy. The programme operates with volunteer school principals throughout the country, and consists of 3 stages - core learning, personalized learning and learning outcomes. The personalized learning stage, based on communities-of-interest, has the capacity to include some Education Law learning under the focus of “leading the management of the school” (AITSL, 2012b, p.4). However, in light of the limited participation in the programme, the criticality of other issues facing school principals, and the lack of education law materials in the AITSL on-line ‘Clearinghouse’ of professional resources, it is clear that the application of this programme will not address the paucity of education law knowledge among Australian school leaders on a comprehensive basis. Only time, and further evaluation of principals’ level of Education Law knowledge, will indicate the success, or otherwise, of the programme in terms of PD for school leaders’ legal literacy.

In summary then, Education Law represents a small, but potentially very significant, element of Australian school principals’ leadership and management responsibilities, and it has accordingly been recognised as an area of vital knowledge within the Principals’ Standards (AITSL, 2011b). Whilst there is an amount of PD being undertaken to improve principals’ knowledge of Education Law, such training is not characterized as being continuous, collaborative or future-focused. Further such training as exists is

constructed on the basis of experts’ views of relevance rather than those of the practitioners themselves.

## DISCUSSION

The introduction of Professional Standards for educators in Australia has occurred relatively recently, and remains an on-going process. The Standards which have been adopted in the particular domains of mathematics teaching and early childhood education, as well as in relation to school leadership, give some indication of the breadth of professional behaviour which the Standards address. When systems of educational PD are linked to the professional Standards, an extensive network is formed to support improvements in schooling and student outcomes. However, as might be expected, given the recent adoption of standards-based PD at the national level; the formal control of Australian public education systems which is vested in the States and Territories; and traditional approaches to PD at the school level, the manner in which standards-based PD is currently expressed in practical terms is subject to considerable variation, as summarized in Table 1.

Table 1: Summary Standard –based PD in the three fields

	Continuous	Relevant	Collaborative	Future-focused
Mathematics teaching	✓	✓	✓	?
Early Childhood Education & Care	✓	✓	✓	✓
Principals’ Legal Literacy	X	?	X	X

Firstly, the Standards-based PD developed for teaching mathematics meets the framework for effective PD, being continuous, relevant, and cooperative, with some degree of uncertainty about its future-focus. This system has been developed using a bottom-up model, based on school practitioners, academic researchers and policy-makers; it suggests that when professional Standards closely reflect the views of profession members, and proposed PD is firmly grounded in both practice and theory, then Standards-based PD is likely to be adopted and enacted by education practitioners for the benefit of students.

Secondly, the ECEC sector in recent years has been the recipient of a high level of funding aimed at improving the quality of services. In response to the recent introduction of professional Standards under the National Quality Framework, resources have been directed toward PD for educators. The comprehensive focus on early childhood PD in Australia illustrates how sectoral research into PD can ensure that the overall framework for effective PD is met. It is suggested that the powerful impetus for the establishment of effective PD within the area of ECEC will likely be reflected in the PD programmes for sub-sectors of ECEC, for example, in early childhood mathematics education, although this is a matter for further research.

Thirdly, it must be recognised that in terms of the *Australian Professional Standards for Principals* (AITSL, 2012b), legal literacy represents a very small element of what school leaders are required to know and be able to do. Nonetheless, an understanding of Education Law matters underpins almost every facet of the leadership and management roles required of the practising principal, and a failure to accurately understand his or her legal obligations may have significantly adverse consequences. Education Law

knowledge thus casts a greater shadow on the principalship than might be expected from a reading of the professional Standards. To date, however, although research supports the implementation of a system of Education Law PD for school leaders, no systematic training has been reported; the existing *ad hoc* programmes do not meet the standards for effective PD recognized in the literature or policy. It is suggested that the absence of systematic PD in this area reflects a lack of prioritisation both within the profession and at the policy level.

## CONCLUSION

The professionalisation of the field of education forms a conceptual background for consideration of Standards-based PD. This paper has demonstrated that the introduction of national professional and/or quality Standards for Australian education has afforded the profession a valuable opportunity to construct professional learning and development around those standards. The field of education, however, is far from monolithic, and the adoption of Standards-based PD in the three areas of mathematics teaching, early childhood education and care, and the legal literacy of school principals has varied considerably. The differences apparent between these areas appear to have been influenced by the involvement of the professional population, the level of resourcing available and the perceived priority of need. Further research concerning the influence of these aspects may assist the on-going implementation of Standards-based PD.

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## REFERENCES

- Algozzine, B., Babb, J., Algozzine, K., Mraz, M., Kissel, B., Spano, S., & Foxworth, K. (2011). Classroom effects of an early childhood educator professional development partnership. *NHSA Dialog: A Research-to-Practice Journal for the Early Childhood Field*, 14(4) 246-262.
- Australia Institute for Teaching and School Leadership. (2010). *National professional standards for teachers*. Melbourne, VIC: AITSL.
- Australia Institute for Teaching and School Leadership. (2011). *National professional standards for principals*. Melbourne, VIC: AITSL.
- Australia Institute for Teaching and School Leadership. (2012a). *Australian professional standards for teachers*. Melbourne, VIC: AITSL.
- Australia Institute for Teaching and School Leadership. (2012b). *Australian professional standards for principals*. Melbourne, VIC: AITSL.
- Australia Institute for Teaching and School Leadership. (2012c). *Australian charter for the professional learning of teachers and school leaders: A shared responsibility and commitment*. Melbourne, VIC: AITSL.
- Australian College of Education. (2001) *Teacher standards, quality and professionalism: Towards a nationally agreed framework*. Canberra, ACT: ACE.

- Australian Government Productivity Commission. (2012) *Schools workforce research report*. Canberra, ACT: Australian Government.
- Ball, S., & Exley, S. (2010). Making policy with 'good ideas': Policy networks and the intellectuals of New Labour. *Journal of Education Policy*, 25(2) 151-164.
- Boyle, B., While, D., & Boyle, T. (2004). A longitudinal study of teacher change: What makes professional development effective? *Curriculum Journal*, 15(1), 45-68.
- Brown, J. R., Knoche, L. L., Edwards, C. P., & Sheridan, S. (2009). Professional development to support parent engagement: A case study of early childhood practitioners. *Early Education and Development*, 20(3), 482-506.
- Buchanan, R. & Chapman, A. (2011). *Utopia or Dystopia? A Critical Examination of the Melbourne Declaration*. Conference paper presented to the 2011 Conference of the Philosophy of Education Society of Australasia.
- Cordingley, P. (2012, Feb.) *The role of professional learning in determining the profession's future*. Paper presented at the Future of the Teaching Profession Seminar, Cambridge, UK.
- Council of Australian Governments, COAG, Early Childhood Development Steering Committee. (2009). *National quality standard for early childhood education and care and school age care*. Retrieved from: <http://www.eduweb.vic.gov.au/edulibrary/public/earlychildhood/nqf/nationalqualitystandard.pdf>
- DEEWR. (2009). *Belonging, being and becoming: The Early Years Learning Framework for Australia*. Canberra, ACT: Commonwealth of Australia.
- Friedman, A., & Phillips, M. (2004). Continuing professional development: Developing a vision. *Journal of Education and Work*, 17(3), 361-376.
- Garet, M., Porter, A., Desimone, L., Birman, B., & Yoon, K. (2001). What makes professional development effective? Results from a national sample of teachers. *American Educational Research Journal*, 38(4), 915-945.
- Goos, M., & Bennison, A. (2008). Surveying the technology landscape: Teachers' use of technology in secondary mathematics classrooms. *Mathematics Education Research Journal*, 20(3), 102-130.
- Gore, J., & Morrison, K. (2001). The perpetuation of a (semi-) profession: Challenges in the governance of teacher education. *Teaching and Teacher Education*, 17, 567-582.
- Gupta, S., & Daniels, J. (2012). Coaching and professional development in early childhood classrooms: Current practices and recommendations for the future. *NHSA Dialog: A Research-to-Practice Journal for the Early Childhood Field*, 15(2), 206-220.
- Hea-Jin, L. (2007). Developing an effective professional development model to enhance teachers' conceptual understanding and pedagogical strategies in mathematics. *The Journal of Educational Thought*, 41(2), 125.
- Heikka, J., & Waniganayake, M. (2011). Pedagogical leadership from a distributed perspective within the context of early childhood education. *International Journal of Leadership in Education*, 14(4), 499-512.
- Huber, S. & Hiltman, M. (2011). Competence profile school management: An inventory for the self-assessment of school leadership. *Educational Assessment Evaluation Accountability*, 23, 65-88.

- doi: 10.1007/s11092-010-9111-1Imber, M., van Geel, T., Blokhuis, J. & Feldman, J. (2013). *A teacher's guide to Education Law* (5<sup>th</sup> ed.). New York, NY: Routledge.
- Ingvarson, L. (1998). Professional development as the pursuit of professional standards: The standards-based professional development system. *Teaching and Teacher Education*, 14(1), 127-140.
- Ingvarson, L. (2011). Trusting the teaching profession with the responsibilities of a profession. *Teaching Science* 57(3), 7-10.
- Irvine, S. L., & Price, J. (2011). Professional conversations: A new approach to professional learning in ECEC. In Prachalias, Chrysovaladis (Ed.) *7th ICE Conference: Conference Proceedings*, INEAG, National and Kapodistrian University of Athens, Greece, Samos, Greece, 152-159.
- Kelly, A. (2009). Globalisation and education: A review of conflicting perspectives and their effect on policy and professional practice in the UK. *Globalisation, Societies and Education* 7(1) 51-68.
- Lee, J., & Ginsburg, H. (2009). Early childhood teachers' misconceptions about mathematics education for young children in the United States. *Australasian Journal of Early Childhood*, 34(4), 37-45.
- Lingard, B. (2013). The impact of research on education policy in an era of evidence-based policy. *Critical Studies in Education* 54(2) 113-131.
- Logan, H., Press, F., & Sumsion, J. (2012). The quality imperative: Tracing the rise of 'quality' in Australian early childhood education and care policy. *Australasian Journal of Early Childhood*, 37(3), 4-13.
- Loucks-Horsley, S., Hewson, P., Love, N., & Stiles, K. (1998). *Designing professional development for teachers of science and mathematics*. Madison, WI: National Institute for Science Education.
- Maxwell, K., Field, C., & Clifford, R. (2006). Toward better definition and measurement of early childhood professional development. In M. Zaslow and I. Martinez-Beck (Eds.). *Critical issues in early childhood professional development* (pp. 21-48). Baltimore: Brookes Publishing.
- McCann, P. (2006). *Principals' understanding of aspects of the law impacting on the administration of Catholic schools: Some implications for leadership*. Doctoral dissertation, Australian Catholic University. Retrieved from <http://dlibrary.acu.edu.au/digitaltheses/public/adt-acuvp129.17052007/index.html>
- Menmuir, J., & Hughes, A. (2004). Early education and childcare: The developing professional. *European Early Childhood Education Research Journal*, 12(2), 33-41.
- Miller, D., & Glover, D. (2007). Into the unknown: The professional development induction experience of secondary mathematics teachers using interactive whiteboard technology. *Learning, Media and Technology*, 32(3), 319-331.
- Ministerial Council on Education, Employment, Training and Youth Affairs. (2008). *The Melbourne declaration on educational goals for young Australians*. Melbourne, VIC: MCEETYA.
- Muir, T. (2010). *Using Video-Stimulated Recall as a Tool for Reflecting on the Teaching of Mathematics*. Paper presented at the Mathematics Education Research Group of Australasia MERGA 33.
- Muir, T., & Beswick, K. (2007). Stimulating reflection on practice: Using the supportive classroom reflection process. *Mathematics Teacher Education and Development*, 8(special issue), 74-93.
- National Reference Group for Standards, Quality and Professionalism (2003). *National Statement from the teaching profession on teacher standards, quality and professionalism*. Canberra, ACT: ACE.

- OECD (2006) *Starting Strong II: Early Childhood Education and Care*. Paris, FR: OECD
- O'Meara, J. (2011). Australian teacher education reforms: Reinforcing the problem or providing a solution? *Journal of Education for Teaching*, 37(4), 423-431.
- Penuel, W., Fishman, B., Yamaguchi, R., & Gallagher, L. (2007). What makes professional development effective? Strategies that foster curriculum implementation. *American Educational Research Journal*, 44(4), 921-958.
- Productivity Agenda Working Group, Education, Skills, Training and Early Childhood. (2008). *A national quality framework for early childhood education and care: A discussion paper*. Retrieved from: [http://www.aeuact.asn.au/info-centre/documents/ececframework\\_000.doc](http://www.aeuact.asn.au/info-centre/documents/ececframework_000.doc)
- Raban, B., Nolan, A., Waniganayake, M., Ure, C., Brown, R., & Deans, J. (2007). *Building capacity: Strategic professional development for early childhood practitioners*. South Melbourne. VIC: Thomson.
- Russell, A. (2009). *Child care staff: Learning and growing through professional development*. Canberra, ACT: Professional Support Coordinator Alliance (PSCA).
- Russell, D. & Cranston, N. (2012). An examination of professional development offerings in one large education system. *Leading and Managing*, 18(1), 1-18.
- Schleicher, A. (2011). *Building a high quality teaching profession: Lessons from around the world*. Paris, FR: OECD.
- Sheridan, S. M., Edwards, C. P., Marvin, C. A., & Knoche, L. L. (2009). Professional development in early childhood programs: Process issues and research needs. *Early Education & Development*, 20(3), 377-401.
- Stewart, D. (1996b). *School principals and the law: A study of the legal knowledge needed and held by principals in government schools in Queensland* Unpublished doctoral dissertation, Queensland University of Technology, Brisbane, QLD.
- The Boston Consulting Group. (2008). *National Early Childhood Development Strategy: Report to the ECD Subgroup of the Productivity Agenda Working Group, COAG*. Canberra, ACT: TBCG.
- The Interim Committee for the Australian Schools Commission. (1973). *Schools in Australia*. Canberra, ACT: Australian Government.
- Thorntom, J., Crim, C., & Hawkins, J. (2009). The impact of an ongoing professional development program on prekindergarten teachers' mathematics practices. *Journal of Early Childhood Teacher Education*, 30(2), 150-161.
- Timperley, H. (2011). *A Background Paper to Inform the Development of a National Professional Development Framework for Teachers and School Leaders*. Melbourne, VIC: AITSL.
- Trimble, A., Cranston, N., & Allen, J. (2012). School principals and Education Law: What do they know, what do they need to know? *Leading and Managing*, 18(2), 46-61.
- Vesay, J. (2008). Professional development opportunities for early childhood educators in community-based child care centers. *Journal of Early Childhood Teacher Education*, 29(4), 287-296.
- Waniganayake, M., Harrison, L., Cheeseman, S., De Gioia, K., Burgess, C., & Press, F. (2008). *Practice potentials: Impact of participation in professional development and support on quality outcomes*



*for children in childcare centres.* Canberra, ACT: Professional Support Coordinators Alliance,  
Access Macquarie and DEEWR.