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## The promise of professional learning for teacher renewal

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*Teacher renewal through professional learning is vital, as its effects on teaching practices enhance student learning (Grodsky & Gamoran, 2003). The present study involved 463 primary and secondary teachers who participated in a variety of professional learning activities between Term 3, 2003 and Term 1, 2004 ranging from seminars, workshops and conferences to longer term programmes. At the conclusion of each professional learning activity participants completed a survey consisting of 21 items, rated on a four point scale. Results indicated the teachers' ratings of their professional learning activities not only affirmed the principles of effective professional development promulgated by the Centre for Educational Research and Innovation (1998) but also delivered the promised teacher renewal.*

In a recent report the Independent Schools Council of Australia (ISCA) declared schools *rely on the quality, dedication and professionalism of their teachers to deliver an excellent education to their students* (ISCA, 2003, p. 12). This assertion by ISCA is substantiated in a large body of research which indicates that in typical schools the majority of gains in student achievement reside at the teacher level (Good & Brophy, 1999; Teddlie & Reynolds, 2000) and are related to teachers' general knowledge and beliefs about teaching, learning and learners (Borko & Putnam, 1995), subject matter knowledge (Loucks-Horsley, Love, Stiles, Mundry & Hewson, 2003), pedagogical content knowledge (Schulman, 1987) and years of experience (Hedges, Laine & Greenwald, 1994; Sanders, 1999). Teachers' professional learning is more likely to improve student learning outcomes if it increases teachers' understanding of the content they teach, how students learn that content, how to represent and convey that content to students in meaningful ways and how to determine when students have learned the content well (Kennedy, 1998; Wilson & Berne, 1998; Sykes, 1999; 2001; Cohen & Hill, 2000). Recent evidence from the Australian Bureau of Statistics (ABS, 2003) indicates that Australia in general and South Australia in particular has a high proportion of older teachers in the workforce, trends which are more marked for males than females and in the government sector compared with the non-government sector. While older teachers may be highly experienced and confident in their teaching role, Skilbeck & Connell (2003) consider there are indications of a need for a renewal to update their curriculum knowledge and pedagogical procedures, as well as for rethinking the structure of their teaching career. Furthermore, Guskey & Huberman (1995, p vii) assert that *regardless of how schools are formed or reformed, structured or restructured, the renewal of staff members' professional skills is fundamental to improvement.*

Renewal of the teaching profession and improvements in the quality of teaching has been on the national agenda in Australia for some time. McRae, Ainsworth, Groves, Rowland & Zbar (2001) describe four phases of teacher professional renewal which can be discerned in Australia over the last fifty years. The

1950s and 1960s were characterised by a highly centralised process of training which had limited but nevertheless very clearly defined goals and structures. The 1970s and early 1980s saw the focus shift to in-service training which was still under central control but with a higher level of awareness of individual needs with 'teachers learning together'. The Professional Development (PD) period of the 1980s and early 1990s was facilitated by the widespread institution of pupil-free days which provided teachers with opportunities to undertake PD within school hours. In this third phase McCrae *et al.*, (2001) consider that central control of the development agenda was qualified by local control, with schools largely choosing the focus of the PD and some teachers taking particular responsibility for it (Skilbeck & Connell, 2003). The fourth and current phase is teacher professional learning in which teachers and schools make their own choices in alignment with central priorities. However, while substantial resources have been invested at the pre-service level– referred to by Rawlinson & Guild-Wilson (1987) as the 'learning to fly' stage; there is much less interest in the nature and extent of developmental experiences – the 'learning to fly with ease and elegance' (Rawlinson & Guild-Wilson, 1987). Unlike many other countries, teacher professional learning in Australia continues to be very largely a matter of choice by schools and/or individual teachers (Skilbeck & Connell, 2003), with the success of professional development activities depending very much on teacher motivation, enthusiasm and commitment (White, Mitchelmore, Branca & Maxon, 2004).

Evidence from the recent Programme for International Student Assessment (PISA) study ranked Australian teachers' participation rate of professional learning as third in the world alongside that of the United Kingdom, Sweden & United States of America (McKenzie & Santiago, 2004). This ranking is based on reports from school principals who indicated that 64% of Australian teachers had participated in some form of PD of at least one day's duration in the last three months. While other studies confirm that the overwhelming majority of teachers do participate in some professional learning and development activities in any one year (Skilbeck & Connell, 2003), a survey conducted in Australia in 1999 under the auspices of *PD 2000* found teacher participation in professional development to be very uneven with several gaps or discontinuities evident (McRae *et al.*, 2001). The survey indicated that participation rates in professional learning activities varied from school to school and even among teachers within the same school, with no organised professional development evident for some schools and teachers (McRae *et al.*, 2001). Teacher age and experience are also significant factors, with teachers with more than 20 years of experience participating more often than less experienced teachers (McCrae *et al.*, 2001). Furthermore, clear cut patterns of professional development activity are difficult to discern, with most teachers engaging in what has been variously described as an episodic, kaleidoscopic (Skilbeck & Connell, 2003), patchwork quilt of topics (McCrae *et al.*, 2001).

While the twenty-first century has witnessed a remarkable change in the esteem with which teachers are held by the community (Roy Morgan Research, 2002), negative images of the profession are commonly projected by practising teachers and the media (Skilbeck & Connell, 2003). The relatively poor standing of teaching and community regard for education is viewed with concern in the recent report by the Commonwealth Committee for the Review of Teaching and Teacher Education (2003). Teachers are faced increasingly with the need to cater for an ever widening range of students with diverse interests, aptitudes and abilities and at the same time keep pace with rapidly developing technologies and fields of knowledge (Organisation for Economic Co-operation and Development (OECD), 2004). There is

a widely perceived need for the profession to present positive images of teaching and to raise the status of teaching (Australian Council of Deans of Education, 2003; Skilbeck & Connell, 2003) through the development of professional capacity (Ingvarson, 2003). Initiatives such as the Commonwealth Government's *Teachers for the 21st Century: Making the difference* (2001–2003) have been developed recently to address this need.

Characteristics of good professional learning for teachers, largely derived from educators' experiences (Cradler, Freeman, Cradler, & McNabb, 2002) are recognised widely (Lovett & Gilmore, 2003). The Centre for Educational Research and Innovation (CERI, 1998) has enunciated three major principles for effective professional learning for teachers which are based on reviews of research evidence. The first principle is that the learning should be experiential and grounded in inquiry, reflection and experimentation. Secondly, teacher professional learning should be collaborative and interactional, with knowledge shared among educators with support inside and outside the setting (Hawley & Valli, 1999). Thirdly, professional learning is most effective when it is connected to and derived from teachers' work with students (Hawley & Valli, 1999). The learning should be sustained, ongoing and intensive, supported by modelling, coaching and collective problem solving around specific problems of practice. While these are generic principles, there is also a very real need for a variety of approaches to professional learning to address differences in people, context and working relationships (Fullan, 1999).

The role of professional development for teacher renewal is indisputable (Ingvarson, Meiers & Beavis, 2005) with the vitality of the teaching profession dependent upon continuous professional learning which should be *planned, systematic, regular and relevant* (Committee for the Review of Teaching and Teacher Education, 2003). However, teacher professional development is very diverse, with the outcomes dependent on the particular circumstances in which it is undertaken (OECD, 2004). Currently professional learning activities across Australia utilise a range of delivery modes (Ingvarson *et al.*, 2004) and tend to focus on pedagogy and curriculum although many other roles and responsibilities of teachers are also included (Skilbeck & Connell, 2003). In a recent evaluation of structural and process factors across eighty individual professional development activities undertaken through the Australian Government Quality Teacher programme in 2002 and 2003 Ingvarson *et al.*, (2004) found that designers and providers of professional learning programmes for teachers often struggled to articulate clearly the strategies that characterised their activities and the outcomes expected from them. Furthermore, a gap is often evident between the optimal conditions for professional learning indicated by research and actual conditions provided. Although the efficacy of the professional learning activities was examined in relation to teachers' practice and student learning outcomes in this evaluation, teacher perceptions of the extent to which the professional learning activities were aligned with the CERI (1998) effectiveness principles was not investigated.

### **The Present Study**

The present study was designed to survey teacher perceptions of a range of professional learning activities in relation to the CERI (1998) principles. Two hundred and twenty-four primary school teachers and 239 secondary teachers took part in a variety of professional learning activities during Terms 3 and 4, 2003 and Term 1, 2004. The activities, which focussed on the major curriculum areas as well as some policy initiatives, ranged from single seminars, to workshops, conferences and longer

term professional learning programmes, with the preponderance of teachers undertaking professional learning activities that were extended across time. At the conclusion of each professional learning activity teachers were administered a common survey which consisted of 21 statements which they rated on a four point scale ranging from 1 strongly disagree to 4 strongly agree. The items in the questionnaire were designed to measure the three CERI (1998) professional learning principles, with the first principle of experiential, inquiry and reflection based professional learning measured by 8 items, the second principle reflecting the collaborative nature of the activity with 3 items and the third principle of relatedness to teachers' work with 10 items as shown in Table 1. Items 1, 4, 5, 11, 13, 14, 16, 17 and 19 also provided information as to the extent to which teachers' perceived that their knowledge and skill had been renewed as a result of the professional activity. An example of the statements for each of the three principles is presented in Table 2.

Table 1  
*Principles of effective professional learning (CERI, 1998)*

Principle No.	Professional Learning Principle	Item numbers
Principle 1	Experiential, inquiry and reflection based professional learning	1, 3, 5, 6, 10*, 12, 16, 21
Principle 2	Collaborative sharing of knowledge among educators.	8, 15, 18
Principle 3	Related to teachers' work with students.	2, 4, 7, 9, 11, 13, 14*, 17*, 19, 20

Note: Items 10, 14 and 17 were reversed.

Table 2  
*Sample items for the three CERI (1998) principles*

Principle	No.	Item
Princ. 1	3	The PD encouraged me to reflect on aspects of my teaching
Princ. 2	15	The PD encouraged teachers to share what they had learned with their colleagues
Princ. 3	11	Information presented in the PD was directly applicable to teachers' work in schools

Note: PD = Professional learning activity undertaken by the teacher.

## Results

Data for each teacher were entered into a Statistical Package for the Social Sciences. While some participants omitted responds to some items the total amount of missing data was very small and consequently did not affect the overall results. Mean ratings were calculated for each item in the questionnaire and plotted in relation to the three CERI principles. Figure 1 shows the indicators for the first CERI principle of experiential, inquiry and reflection based professional learning, Figure 2 the collaborative sharing among educators illustrative of principle 2 and in Figure 3 the third principle of relatedness of the professional learning to teachers' work with students. In Figures 1-3 each survey item is labelled as "Q" followed by the specific item number. Q10 in Figure 1 and Q14 and Q17 in Figure 3 are reversed items.

Figure 1 demonstrates that overall teachers perceived that the professional learning activities that they had undertaken did reflect the CERI principle 1 as they were experientially based (Q5; Q12), providing them with the time (Q10) and opportunities to reflect on their current practices (Q3) and presenting them with new

and different ideas (Q16). These activities updated their professional knowledge (Q1) and renewed their enthusiasm for teaching (Q6). Effective professional learning must not only encourage teachers to be reflective, but CERI principle 2 stresses the need for teachers to share what they have learned from their professional learning activity with one another (Grodsky & Gamoran, 2003). This collaborative element is presented Figure 2 in Q8, but in this same figure it is evident teachers responded less positively to the two items (Q15 & Q18), which were concerned with the extent to which teachers were encouraged to share their learning with colleagues and received adequate support from their respective schools to do so. Figure 3 shows that teachers rated positively the items measuring the extent to which the professional learning they undertook was connected to and derived from their work with students. Irrespective of the type of activity undertaken, responses to items 1, 4, 5, 11, 13, 14, 16, 17 and 19 in Figures 1 and 3 showed that teachers overwhelmingly felt that their professional knowledge, skills and understandings had been renewed, updated and improved. In particular they found the professional learning activity they had undertaken to be directly relevant, applicable and useful for teaching and learning in their schools and looked forward to trying out new ideas in teaching.

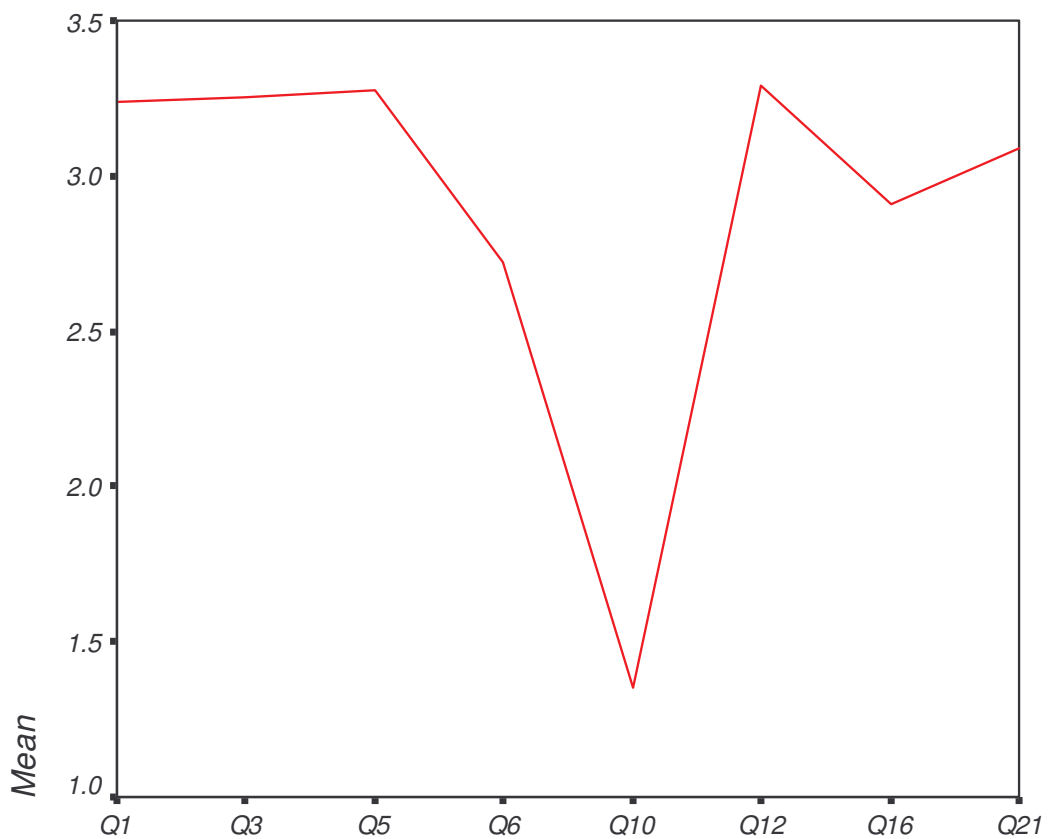


Figure 1: CERI (1998) Principle 1: Experiential, inquiry and reflection based professional learning

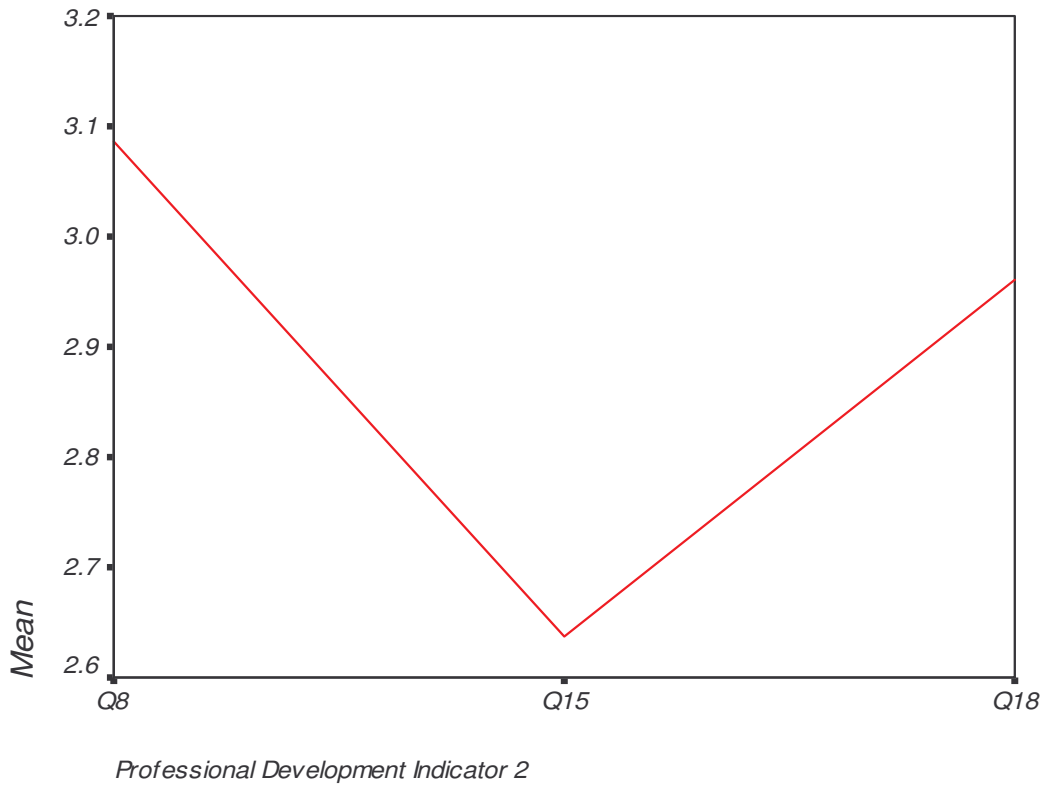


Figure 2: CERI (1998) Principle 2: Collaborative sharing of learning among educators

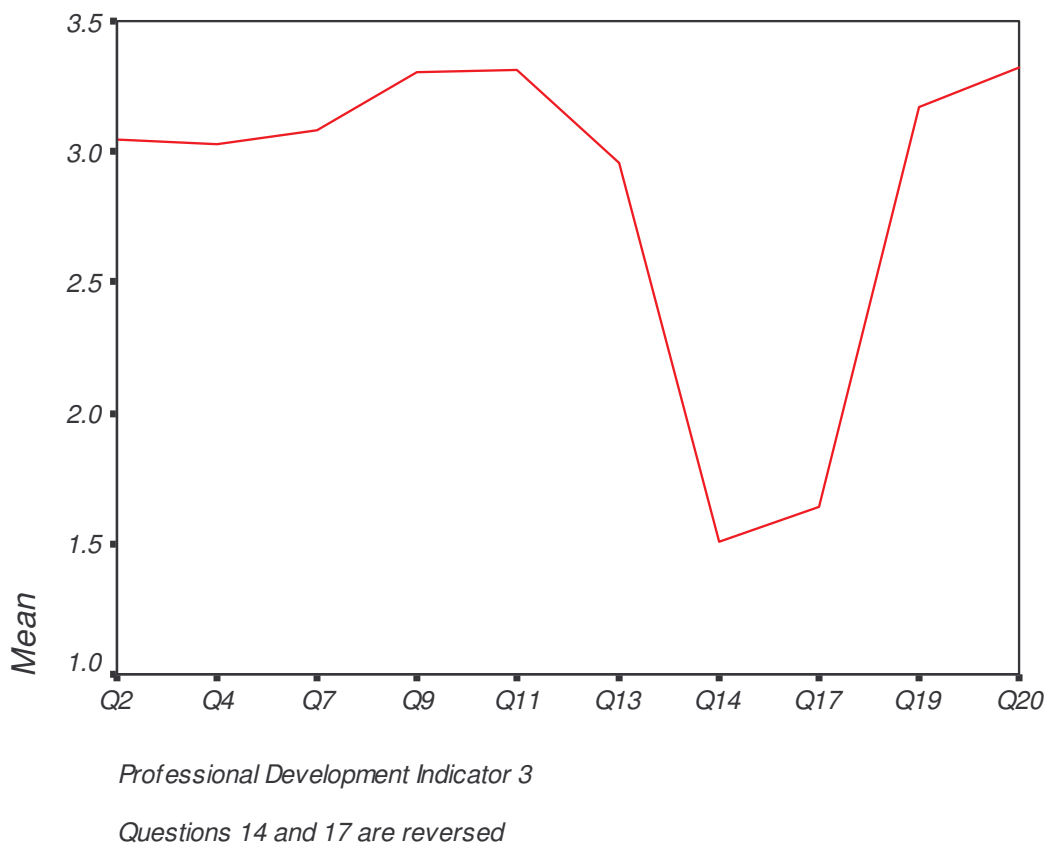


Figure 3 CERI (1998) Principle 3: Professional learning related to teachers' work with students

## Discussion

Previous studies have reported that there is often a considerable gap between the optimal conditions for professional learning indicated by research and those that are actually provided (Ingvarson *et al.*, 2005). Data from this study would suggest that although the teachers surveyed undertook a wide range of different professional learning activities by and large the principles of effective professional learning promulgated by CERI (1998) were confirmed with the exception of aspects of principle 2 which was measured with only three items. To be effective professional learning must not only be reflective, but it must also require teachers to communicate openly with one another about pedagogical issues (Grodsky & Gamoran, 2003). In relation to teachers' negative responses to items Q15 and Q18 in Figure 2, it must be born in mind that the survey was administered across a range of professional learning activities and that knowledge sharing may not have been feasible within some of the seminars and conferences. Furthermore, opportunities for sharing with colleagues may not have been possible in situations where teachers undertook the professional learning on their own initiative, at their own expense and in their own time.

The current study focussed on teacher self-report data collected immediately after professional learning activities had concluded. Mayer (1999) has asserted that a certain level of confidence can be placed in surveys that rely on teachers' reports about their practice, a finding which has been verified with Australian teachers by Ingvarson *et al.*, (2005) who consider that most teachers are remarkably frank and unbiased in their assessment of programmes of professional learning. As the survey was administered immediately following the professional learning activities it was not possible to ascertain the extent to which the professional learning activities undertaken would have an effect on student learning outcomes, although previous studies do indicate that this is the case (McCrae *et al.*, 2000; Skilbeck & Connell, 2003; Ingvarson *et al.*, 2005). Guskey (1985) suggests that changes in teaching practices must precede changes in teacher attitudes, so although the teachers reported their intention to put the new ideas into practice whether they did so remains unknown. Furthermore the question of the cumulative effects of professional learning on teacher quality and renewal has not been addressed in this study or in other studies to date. This is an important consideration as it is not known how long the effects of professional learning endure after the implementation phase has passed or indeed what motivates some teachers rather than others to undertake professional learning. The necessity of a continuum of lifelong learning for teacher renewal advocated by governments around the world (OECD, 2004) is as yet untested.

Teacher renewal has been addressed in a number of recent Commonwealth reports including *Teachers for the 21<sup>st</sup> century - Making the difference* (Commonwealth Department of Education, Training and Youth Affairs, (DETYA), 2000); *Backing Australia's ability: An innovation action plan for the future* (Commonwealth of Australia, 2001); *Making better connections Models of teacher professional development for the integration of information and communication technology into classroom practice* (Commonwealth Department of Education, Science and Training, (DEST), 2001); *Raising the standards* (DEST, 2002) and *Australia's teachers: Australia's future - advancing innovation, science, technology and mathematics* (DEST, 2003). Clearly this is an issue that is central to Australia's future as a knowledge nation (DETYA, 2000). While research reviewed by CERI (1998) has indicated a set of principles which are associated with effective professional learning programmes for teachers, the current episodic and disjointed nature of professional learning offered to Australia's teachers means that much more

research is needed, particularly from the viewpoint of the teachers who often undertake the professional learning out of school hours and at their own expense.

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