The future of the practicum: Addressing the knowing-doing gap

Abstract

This paper presents a model that addresses the problem of the knowing-doing gap in the pre-service teacher education practicum. Addressing this gap is important because it is an enduring problem in the teacher education literature and provides benefits to pre-service teachers undertaking the practicum. It also has the potential to facilitate improved pedagogical capabilities of graduates and learning for their in-school mentors. The model is underpinned by research that found tasks requiring pre-service teachers to apply knowledge presented in the university program while they were placed in the school addressed the knowing-doing gap. Two key roles are presented in the model that provide coordination of the "in-school" functions of the practicum and the "across-schools" functions of the teacher education program.

Introduction

Evidence of the problems associated with the gap between theory and practice in the teacher education practicum can be found in a range of recent reports and policy responses. The report into teacher education, which lists over one hundred teacher education enquiries conducted in Australia since 1979 (House of Representatives, 2007) highlights examples of the problem and the need to rethink the practicum.

> *The problems with practicum have been outlined in nearly every report addressing teacher education in the last decade. The fact that these problems have still drawn so much attention in this inquiry indicates the need for major reform in the area involving all players and all aspects of the system* (House of Representatives, 2007, p. 73).

International reports also raise concerns about linking theory to practice through the practicum in teacher education with the need for "stronger partnerships between schools and teacher education institutions" (OECD, 2005, p. 30). Darling-Hammond (2010) cites the lack of connection between on-campus learning and in-school practice as a problem and highlights what she calls "powerful programs" as having strong "interwoven coursework" (p. 40) making explicit links between what is learned on campus and professional practice.

This paper presents elements of a practicum model that address the theory-practice gap. It utilises research undertaken in a unique approach to the practicum developed in a small geographic area of Queensland. A partnership between schools within a state education district and a university now offer a way forward in addressing the gap between theory and practice.

The practicum

The practicum, the overwhelmingly dominant approach to professional practice in Australian teacher education programs, is often the focus of critique about problems with teacher education programs (House of Representatives, 2007; Richardson & Knight, 2011; Knight & Moore, 2012).

The amount of time undertaking professional practice in a teacher education program varies greatly in Australia (House of Representatives, 2007, p. 67). While the researchers acknowledge the argument of quality and not quantity, the variations across Australia in the amount of professional practice required in pre-service teacher programs should be considered. A related problem in Queensland is the financial cost to universities in terms of payments to supervising teachers. Confining professional practice to the minimum of 80 days avoids cost increases for universities.

The availability and suitability of supervising teachers is also an issue identified in the House of Representatives inquiry (2007). Finding enough places, rather than securing places with high performing teachers, is a problem for universities.

Again solutions are present in the literature. For example Eyres (2005) identifies a range of features of a high quality practicum. They include building the practicum around a partnership between universities and schools and schooling systems; articulating within the program clear developmental stages that detail the knowledge, skills and attitudes teacher education students should demonstrate at each stage of the program; and finding ways for the program to actively link theory and practice.

Partnerships

Partnership arrangements between universities and schools that meet certain criteria, including the genuine engagement in the learning process, deliver the most positive results

to pre-service teachers (Allsopp et al, 2006; Ingvarson, Elliott, Kleinhenz, McKenzie, 2006; Richardson & Knight, 2011; Zeichner, 2010). However, there is a lack of partnership in Australia between universities and schools in pre-service education (House of Representatives, 2007).

In most university-school partnerships there is a power imbalance in which the school is not party to decisions about the program. The resulting separation of responsibilities means, at best, the function of the school is to merely provide a place for pre-service teachers to "practise" what is taught at university. However this practice is often done without the supervising teacher having knowledge of what has been taught on campus. At worst, pre-service teachers just spend time in schools observing what teachers do, reinforcing a dichotomy between theory and practice.

Implementing strategies to improve the theory-practice gap in the professional practice element of teacher education programs requires significant change (Darling-Hammond (2010). To achieve a connection between universities and schools entails a shared obligation on the part of all involved in the program (teachers, lecturers, casual lecturing staff, principals, system executives) for collaboration and shared decision making, as well as a commitment to shared vision and outcomes.

The knowing-doing gap

There is a substantial body of research that confirms the existence of a gap between theory presented in pre-service teacher programs and practice in schools (Allsopp et al, 2006; Churchill, 2007; Cochran-Smith, 2009; Valencia, Martin, Place & Grossman, 2009). The theory-practice gap in schools and school systems has been identified in a number of reports in the state of Queensland. For example, the Queensland School Reform Longitudinal Study (The State of Queensland, 2001), New Basics (The State of Queensland, 2004) and governmental responses to improve school performance in literacy, numeracy and science, (Masters, 2009), provide evidence of where the "known" is not being "enacted" in schools.

Three matters concerning the theory–practice problem are relevant. Firstly, the translation of theory (what is taught at the university) to practice (how this is applied in the teaching setting) is not evident in teacher education. Secondly, the professional practice component of teacher education programs is about practised experience, and not the use of theory-

based practice (Fitzclarance, 2003). Thirdly, there is a disconnection between evidence-based knowledge generated outside of the school sector through research and its application in school setting by school leaders and teachers (Butler and Schnellert, 2008).

The culture of an organisation also plays a part in maintaining the status quo. Organisations, including schools, have an "amazing capacity" (Sparks, 2009) to maintain beliefs and practices despite efforts to change them. Sparks suggests there are two factors that need to be addressed before pedagogical practices are to be improved. These are that teachers actually know more about effective teaching than they practice, and that exposure to research through traditional in-service programs, that should improve practice, rarely does (Sparks, 2009).

In the management literature the theory-practice gap is referred to as the knowing-doing gap (Pfeffer and Sutton, 2000). In essence, the knowing-doing gap emphasises that people who work in an organisation may well know what needs to be done to achieve desired outcomes, but there is often a gap in performance that results in this work not being done. The knowledge is not put into practice.

Pfeffer and Sutton (2000) refer to the phenomena as the "knowing-doing problem" (p. 4). They argue that successful business strategy can be identified and should be easy to emulate, but rarely is this done successfully. In the business context, this gap suggests a significant difference between what is known to be successful in organisational practice, and the action of what is actually done, resulting in underperformance of a business. While the phenomenon can be described differently, a gap between 'knowing' and 'doing' results in a performance gap.

DuFour & DuFour (2007) identify closing the knowing – doing gap as the most pressing issue confronting educators. The problem is not a lack of knowledge but the taking of "purposeful steps" to implement that knowledge. Smith & Moore (2006) describe a similar situation of "theory–practice divides," "*knowing-doing gap*s" and "performance plateaus" in examining the history of teacher education (pp. 9-12).

Zeleny (2008) states that, while Pfeffer and Sutton properly identify the gap between action and the description of action, the gap is based on a misunderstanding of knowledge and knowing. Zeleny (2008) asserts there is a gap between having information and acting

upon it, or transforming that information into action. This "gap," no matter how it is described, is an issue in many aspects of human endeavour that results in less than optimum performance.

The literature reveals that the *knowing-doing gap* is a problem evident in organisations including schools, schooling systems and teacher education faculties. It is also apparent that, where knowing does not translate into doing, steps are required to overcome this gap. According to a number of studies (for example Hattie, 2010; Levin, 2010; OECD, 2009) strengthening the connection between research, policy and practice offers a way to address the gap.

Context of the Study

The teacher education program that was the basis of the research was the Bachelor of Learning Management at Central Queensland University. The Teaching School Model (TSM) is the basis of a partnership between the university and a school where the school provides the real life setting for teacher learning under the expert guidance of practising professionals. The teaching school represents much more than the notion of a traditional 'prac school' in traditional teacher education, as it plays a structured and critical role in the development of future teachers, rather than in the ad hoc availability of "placements".

In this model, pre-service teachers are attached to schools for a minimum of two university terms. The attachment is made up of day visits run concurrently with the university term, as well as "block" periods. The extended period of time the student is in contact with the school is important, as it counters the detached experience a short practicum offers the student and establishes a learning community around its outcomes required for the stage of the program. The teacher education students must complete structured learning tasks (known as portal tasks) whilst attached to the teaching school to demonstrate that they have traversed the theory-practice divide (Smith, Lynch & Knight, 2010).

Key personnel in the TSM include the in school and across school coordinators. The in school coordinator, in addition to coordinating the activities of the teaching school, conducts learning sessions in the teaching school akin to university tutorials. A university teaching school coordinator is an across school coordinator who as a member of the university staff builds a relationship with school personnel.

Methodology

The aim of the research was to examine the functional characteristics of the TSM in addressing the knowing-doing gap by exploring the perceived roles of principals, in school and across school coordinators as well as mentor teachers.

A sequential mixed method approach was used to collect quantitative data from a survey and detailed explanatory qualitative data from focus group interviews. The eight knowing-doing gap guidelines (Pfeffer & Sutton, 2000) provided the basis of the on-line survey questions with semantic differential scales used to measure the perceptions of practitioners involved in the TSM. The survey was open to TSM practitioners in thirty-six teaching schools, with SPSS (Version 17) used to obtain descriptive statistics and to undertake a factor analysis of the data. The participants were drawn from those performing one of four roles in the teaching school, including principals (33 invited - 7 responses), in school coordinators (35 invited – 11 responses), across school coordinators (8 invited – 7 responses) and mentor teachers (2 groups - 166 invited – 46 responses). Sixty-one percent of the participants had between 2 years and 5 years' experience with the TSM, 25% greater than 5 years' experience, with most participants from the primary school sector.

Recorded data from five focus groups was collected through the development and use of questions related to the TSM and the knowing-doing gap guidelines. Participants in the focus group interviews were principals (5), in school coordinators (6), across school coordinators (6), mentor teachers group one (6), and mentor teachers group two (5).

Key findings

The intent of the research reported here was to establish if any of the characteristics of the Teaching School Model (TSM) contributed to addressing the knowing-doing gap (Turner, 2006). The findings suggest that three elements are critically important to address the knowing-doing gap: a commitment to the philosophy of the model amongst all participants, the tasks pre-service teachers are required to do should link on campus learning to "doing"; and the roles of an "in school" coordinator, and an across "schools" coordinator are important for establishing and maintaining the partnerships between schools and the university.

1. A commitment to the philosophy and approach of the teacher education program

The research indicates an alignment and close working relationship between teaching schools and the university. Evidence of this is seen in the alignment of perceptions between all involved in the TSM from survey data, regardless of their role, or whether employed by the school or the university.

Results from focus group sessions point to a consistent approach within teaching schools. The value of the portal task, an assessment requirement that links all university courses to the school experience, is captured in the following quote from a school principal.

> … if we want our pre-service teachers to be what we call "work ready" (there are) critical knowledge and skills that they've got to have. (I)f it is not through a structured expectation like (the task) it's not going to happen. … at least with the portal task, despite the knowledge and the skills of the mentor, these guys are still tasked to go away and develop the knowledge and skills and I think it is very positive.

The "despite the skills of the mentor" suggests that the portal task mitigates variations in regard to mentors and their professional skills. This is again confirmed in the following remark by another principal.

> We have a lot of variation in teacher ability at the moment ... and we are spending a lot of money and time in a meaningful and reasonable way of bringing our teachers up to speed… So if we can say that that is a bottom line competency that we've got with new (graduates) then I think that (the) university that is taking that view is going to have more teachers employed.

2. *The portal tasks*

The research findings suggest that the portal task underpins much of the activity in the TSM and the model's intent to address the gap between knowing and doing. The results indicate that the portal task establishes the "action" required of school staff and pre-service teacher education students. Results from the focus group sessions established the importance of the portal task. Principals reported its benefits as being the capacity the task has for better preparing pre-service teacher for entering the profession, the contribution the completion of portal tasks can make to the school and the learning that is facilitated for the school's mentor teachers. Likewise, they articulated that the portal task framed the activity

of the teaching school. The results of a factor analysis indicate the portal task as being concerned with "Action," "Application," "Performance" and "Mentoring."

The portal task proved to be a feature of the TSM referred to in very positive terms in focus groups sessions. This is reflected by comments made by participants in the research about the capacity of the portal task to address the *knowing-doing gap*. Principals used words such as "fantastically" and "absolutely" to describe this capacity, and in-school coordinators also saw the portal task as important to the Teaching School Model.

 Figure 1 illustrates the relationship the task has with the "on campus" university program and practice in schools. The "university" component contains all the experience of the university program and encompasses course content, underpinning knowledge and research and theory that the pre-service teacher is exposed to through lectures, workshops, tutorials, online activities and readings. The "teaching school" component encompasses observation of practising teachers and school activities; reflection on that observation; practice teaching; participation in school activities including staff and team meetings and professional development offered by the school. The figure highlights the central importance of the task in the TSM, as represented at the intersection of the university on campus learning and the in school learning facilitated in the teaching school.

INSERT FIGURE 1 HERE

3. The in school and across schools coordinator roles
The research findings indicate the key roles in the practicum are that of the "in school" coordinator and "across schools" coordinator. The results suggest that the efficacy of the TSM "hinges" on these roles and the relationship established between them.

The in school coordinator may be employed by the university or school, or through a joint appointment resulting from the shared commitment to the program. There was agreement from principals that the "in school" coordinator provided quality control for the program, and the support from the university ensured consistency in the program as summed up by one principal.

> I think that having (the "in school" role) really does pull (the experience) together… if they…. understand very clearly what the expectations (are). I think it brings that consistency and quality control into it (School Principal).

Ongoing professional support should be provided to the in school coordinator to ensure a commitment to the program's philosophy is maintained; and that a deep understanding of the tasks to be completed by pre-service teachers and of the university's policies and processes is achieved. The individual performing this role also works with mentor teachers and school administrators to ensure a level of consistency in classrooms across the school.

Based on the results from the research, it is possible to articulate the relationships between the four TSM roles considered in this research and three additional roles within the university. Figure 2 shows that the key relationship, as demonstrated by the thick arrow, is between the "in school" coordinator and the "across schools" coordinator. This relationship is appropriately envisaged as a conduit between the university program and the activity of the teaching school.

INSERT FIGURE 2 HERE

This finding was supported by focus group comments that highlighted that the "in school" coordinator is the "go to" person within the teaching school, and is the one point of contact within the school for mentor teachers. Furthermore, focus group results indicated mentor teachers look to the "in school" coordinator to coordinate teaching school operations and solve problems as they arise.

Conclusion

There are a number of limitations of this research investigation. Firstly, the research involved only one university campus, and teaching school personnel in the educational district are influenced by local factors and by the relationship they have with the campus. Whilst the TSM may be having an impact upon pre-service teacher education practices in teaching schools in the chosen geographic area, the research has not drawn conclusions about the wider impact of its implementation.

Secondly, this research is limited to the perceptions held by those involved in the TSM. The research does not examine the outcomes for teacher education students or make comparisons between the TSM and other approaches to the practicum. In addition,

measuring perceptions is not without its problems. The measurement of individuals' perceptions of the TSM neither considers the actual action undertaken by TSM practitioners, nor the effectiveness of that action. Observational and group assessment techniques should be considered in future studies.

Thirdly, the size of the research sample meant that comparisons between TSM practitioner categories were deemed not to be achievable. The analysis of the survey data was able to compare "mentors" and "non-mentors" and, as demonstrated by a Chi-Square Test, no significant differences in these groups were found.

Although there are these limitations, the research undertaken suggests that there are opportunities to address the *knowing-doing gap* in the teacher education practicum. Central to the success of the model appears to be the "portal" tasks that translate what was learned on campus into practice in the school. In addition, the role of the "in school" and "across schools" coordinators and the relationship established between the individuals undertaking these roles, are likely to be a key consideration in any approach to the practicum.

The opportunity to prepare more effective teachers by improving the processes in pre-service teacher education programs (Darling-Hammond, 2010), and at the same time to inject the "expert" (State of Queensland, 2001), or "worthwhile" (Hargraves, 2003), knowledge necessary to improve teaching into schools, is a prospect that requires further exploration. However, Darling-Hammond (2010, p. 42) reminds us that underpinning any new approach is the need for new arrangements between schools and universities:

> (Strategies) for connecting theory and practice cannot succeed without a major overhaul of the relationships between universities and schools –one that ultimately also produces changes in the content of schooling as well as of teacher training.

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Figure 1 – The central role of the Assessment (Portal) Task

Program Philosophy

University

Teaching School

Program including course content, underpinning knowledge, research and theory

Assessment Task

In school professional learning facilitated by the "in school" coordinator and mentor teachers
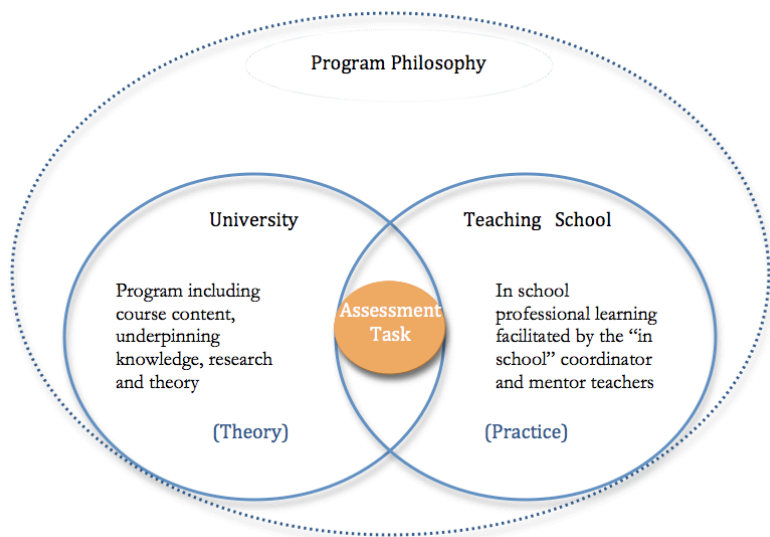
(Theory)

(Practice)

Figure 2 In School-Across School Coordinator Relationships