

Mentoring as professional development: 'Growth for both' mentor and mentee

Peter Hudson

Queensland University of Technology

Abstract

Teachers need professional development to keep current with teaching practices; although costs for extensive professional development can be prohibitive across an education system. Mentoring provides one way for embedding cost-effective professional development. This mixed method study includes surveying mentor teachers ($n=101$) on a five part Likert scale and interviews with experienced mentors ($n=10$) to investigate professional development for mentors as a result of the mentoring process. Quantitative data were analysed through a pedagogical knowledge framework and qualitative data were collated into themes. Survey data showed that although mentoring of pedagogical knowledge was variable, mentoring pedagogical knowledge practices occurs with the majority of mentors, which requires mentors to evaluate and articulate teaching practices. Qualitative data showed that mentoring acted as professional development and lead towards enhancing communication skills, developing leadership roles (problem solving and building capacity), and advancing pedagogical knowledge. Providing professional development to teachers on mentoring can help to build capacity in two ways: (1) quality mentoring of preservice teachers through explicit mentoring practices, and (2) reflecting and deconstructing teaching practices for mentors' own pedagogical advancements.

Keywords: mentor, professional development, preservice teachers, mentoring

Introduction

Teachers in schools are required to upgrade their skills through professional development (e.g., Education Queensland's 30 hours minimum professional development per year per teacher). However, the amount of professional development is severely limited because of their teaching loads and costs (e.g., replacement teacher and program attendance).

Departments, schools and educators seek ways to negate costs, as it is recognised that professional development for teachers is essential for education reform to occur (Fullan 2008; House of Representatives Standing Committee on Educational and Vocational Training [HRSCEVT] 2007). This paper presents mentoring as a cost-effective form a professional development (Boyer, Maney, Kamler, & Comber 2004; Goldsmith Roberts 2011) that can engage mentors in education reform measures to promote growth in both mentors and mentees.

Literature review

Many authors report on a wealth of professional benefits and positive impacts mentoring can have not only for the mentors and mentees (Beutel & Spooner-Lane 2009; Rippon & Martin 2006; Tang & Choi 2005; Zachary 2009), but also for schools, education systems and associated communities (Beutel & Spooner-Lane 2009; Galbraith 2003; Hobson, Ashby, Malderez, & Tomlinson 2009). Surrounding the mentoring process is the importance of an effective mentoring relationship, which is underpinned by a variety of factors including: the mentor-mentee personal and professional qualities (Rippon & Martin 2006); the mentor's attributes and practices (Hudson 2010); the environment or context within which it operates; and the selection and pairing of the personnel involved in the relationship (Hobson et al. 2009). Professional benefits occur for mentors when they articulate and model pedagogical knowledge, which also includes implementing education system requirements such as curricula, aims, and policies (Hudson 2010).

Teacher preparation courses need well-informed mentors to work with preservice teachers in the school context. It is argued that mentors who are educated about mentoring can advance the quality of preservice teacher education and, simultaneously, advance their own skills (Giebelhaus & Bowman 2002). The ultimate aim of both teacher and mentor professional development is to augment student outcomes. So, like teaching, mentoring must be purposeful and guided by empirical evidence and the literature; although to date mentoring is largely 'unguided and disconnected' (Zeichner 2010, p. 91) and lacks 'specific training to enable high

quality engagement and developmentally progressive support for student teachers' (Clarke, Triggs, & Nielsen 2012, p. 49). Tang and Choi (2005) emphasise that mentor preparation has been insubstantial in many mentoring programs to date, a feeling shared by others (Beutel & Spooner-Lane 2009; Davis & Higdon 2008; O'Brien & Goddard 2005). It is more likely that mentors will be effective in their roles when they have undertaken a mentoring preparation program appropriate to their workplace context (Hobson et al. 2009). Another argument suggests that not all practitioners are suited to mentoring (Newby & Heide 1992), but if mentors, especially those in their formative stages of mentoring, are not provided with professional development to enhance their practices then education systems will be limiting their prospects to build capacity. Simply, there are not enough professionally-developed mentors available and so educating mentors on effective practices must be paramount for ensuring the quality of preservice teacher education in schools (Hudson 2010).

Professional development must be 'designed to build teachers' levels of expertise, including their own content knowledge... and their knowledge of effective ways to teach' (Masters 2009, p. 9). Mentoring, as a way for professional growth, 'rests on empowering prospective teachers to think about expanded ways of engaging in (curricula) and in pedagogy' (Campbell & Brummett 2007, p. 50). This requires mentors to be open to learn from their mentees in reciprocal arrangements where both learn from each other, which includes an 'openness to receiving constructive feedback and a willingness to provide it' as part of a two-way relationship (Rush, Blair, Chapman, Codner, & Pearce 2008). One way for mentor teachers to learn from their mentees is to 'relinquish control of their classrooms in order to benefit from innovative ideas that student teachers may have to offer' (Rajuan, Beijaard, & Verloop 2007, p. 240). There are opportunities to have growth for both within an effective mentoring arrangement.

One article (Hobson et al. 2009) has unpacked the benefits for mentees with references to other studies, which focuses heavily on emotional and psychosocial support and management skills. For preservice teachers, the benefits also embrace the development pedagogical practices for teaching in the classroom with practical knowledge of school contexts. Furthermore, Hobson et al. outline the professional and personal benefits for mentors, especially through the process of critical self reflection on their own teaching practices as a result of observing new strategies from mentees. This article elaborates on mentors validating their practices and becoming knowledgeable about the needs of others with greater

collaboration resulting in less isolation. In addition, mentoring can lead towards career planning and potential leadership roles for mentors as it can enhance communication skills, develop leadership skills, and increase professional status.

A study conducted by Gilles and Wilson (2004) also concluded that mentoring is professional development with the possibilities of mentors gaining insights into their teaching and mentoring roles and the complexities of an education system. It can also build leadership capacity. 'Mentoring is somewhat developmental; it must be learned by engaging in it and needs to be consistently supported' (p. 87) and it 'gives these teachers leadership opportunities that build confidence and professional courage' (p. 104). Other studies have reported on mentoring as a form of professional development. To illustrate, Allen, Cobb, and Danger (2003) show that 'all inservice teachers reported increased reflection on and adaptation to their instructional strategies' (p. 177) while Lopez-Real and Kwan (2005) show that about 70% of 259 mentors surveyed indicated they were professionally developed through additional self-reflection, preservice teacher innovation, and the process of mutual collaboration. Mentoring can facilitate teaching development for the mentor (Chow, Tang, & So 2004).

As research continues to confirm 'that teachers find the mentoring role to be professionally and personally rewarding' (Simpson, Hastings, & Hill, 2007), utilising these benefits for an education system need to be investigated (see also Stanulis, 1995). West (2002) argues that, teacher mentorship is a vital, yet often underutilized strategy that local, regional and national professional development initiatives should include. Although mentorship programs are very time consuming to arrange and implement, such programs can often be realized for nominal cost with existing personnel. (p. 72)

In this respect, mentoring as an underutilised, cost-effective way to engage teachers in professional development needs to be explored as an option to inject reform measures into an education system. Particular focus should be on investigating mentor benefits and how this could be used purposefully as professional development. Despite the wide-range of mentor benefits that could be investigated, this current study aims to explore teachers' mentoring of pedagogical knowledge as a means of professional development. It also explores the professional needs of mentors for mentoring more effectively. This study uses a theoretical framework focused on the mentoring of pedagogical knowledge.

Theoretical framework

Hudson's (2010) mentoring model (i.e., personal attributes, system requirements, pedagogical knowledge, modelling, and feedback; see www.tedd.net.au) is recognised elsewhere (see http://eprints.qut.edu.au/view/person/Hudson,_Peter.html). This paper focuses on one of these five factors, namely, the mentor's pedagogical knowledge, as this is particularly relevant for advancing teaching practices (see Hudson 2012). In this theory, pedagogical knowledge encompasses planning for teaching, which requires timetabling, preparation, teaching strategies, and classroom management for implementing teaching practices. It also covers other aspects for effective teaching including how to: deliver content knowledge, develop questioning skills, assist in problem solving, and provide information and guidance for assessment. Mentoring necessitates clear articulation of expectations and practices, as well as providing the mentee with various viewpoints about teaching. These viewpoints may be in the form of frameworks, models and theories (e.g., Bybee's 5Es, Bloom's Taxonomy, Gardner's Multiple Intelligences), catering for student's varied abilities (differentiation) or any teaching and learning philosophy that provides further insight for the mentee.

Data collection methods and analysis

This mixed-method study involved a survey using a five-part Likert scale with extended written responses and audio-recorded interviews. The survey, which was posted to schools of participating mentor teachers at the conclusion of their four-week mentoring experience, drew upon Hudson's (2010) pedagogical knowledge for mentoring where data derived from the Likert scale were entered into SPSS and analysed according to percentages of agreed and strongly agreed responses. The surveys were designed to gather the mentors' perspectives of their pedagogical knowledge mentoring in relation to specific primary subject areas (i.e., literacy, numeracy and science). These three subject areas are a key focus of the Australian government reinforced by NAPLAN tests (see <http://www.naplan.edu.au/>). So as not to overburden any one participant with multiple surveys, 150 surveys (50 in each subject area and each with a stamped addressed envelope) had a return rate of completed responses as follows: Literacy ($n=24$), numeracy ($n=43$) and science ($n=34$). Data were analysed using percentages of agreed and strongly agreed responses. The extended written responses focused on mentors' perceptions of their pedagogical knowledge growth as a result of their last mentoring experience and were collated into themes with selected mentors' comments as representative of the themes (e.g., see Creswell 2012).

Survey responses were anonymous; hence 10 mentors were invited purposively to be interviewed at the conclusion of a four-week block practicum. The invitation went to experienced mentors who participated in a two-day Mentoring for Effective Teaching (MET) professional development program (see www.tedd.net.au) within the last 18 months. All had between 6 to 25 years teaching experience and all had previously mentored 2 or more preservice teachers, with three (mentors 3, 6, & 7) mentoring more than 10 preservice teachers. The 20-30 minute audio-recorded interviews were transcribed by an experienced research assistant with a PhD. Questions asked included: What did they learn from the mentoring experience and what do they require to further advance their mentoring. Data were collated into themes and analysed interpretively through their comments (see e.g., Creswell 2012).

Results and discussion

To gain an indication of how these mentors ($n=101$) perceived their mentoring of pedagogical knowledge across the three key learning areas (i.e., literacy, numeracy, and science), mentors' agreed and strongly agreed responses were represented as a percentage (Table 1). The majority of mentors indicated they had mentored each of the pedagogical knowledge practices. The mentoring of primary science pedagogical knowledge was lower (all practices indicated $<87\%$) than the other two KLAs (key learning areas) except for discussing content knowledge and questioning techniques. Indeed, there was a large discrepancy between mentoring content knowledge for literacy (95%) compared with numeracy (65%) and science (69%). In addition, there were three practices listed in literacy and six practices in numeracy where percentages were 90% or more (Table 1).

A few inferences may be deduced from this table, namely: (1) mentoring of pedagogical knowledge is variable; (2) mentoring of advocated pedagogical knowledge practices occurs with the majority of mentors; and (3) some mentors may lack confidence and/or competence in mentoring particular pedagogical knowledge practices. This information contextualises the mentoring of pedagogical knowledge for the purposes of interpreting their extended written responses on this matter. The fact that mentors had mentees on their classes meant that the majority claimed they articulated pedagogical knowledge practices to the mentees, which constitutes professional development. For instance, mentors who assisted in planning for teaching in one of the KLAs required them to engage with the new curricula. It also inferred that mentors needed to reflect on their practices and articulate these practices to another adult.

INSERT TABLE 1 ABOUT HERE

Mentor teachers were asked how they could enhance their mentoring skills in literacy ($n=24$), numeracy ($n=43$) and science ($n=34$) to assist preservice primary teachers in their pedagogical development in these areas. Although all responses could not be qualitatively correlated across the three subjects, there was some consistency with mentors wanting more familiarity with syllabus documents and sharing content knowledge with other mentors. Professional development (PD) in mentoring and being able to practice mentoring was a focus for several mentors in numeracy and four mentors in the science area (Table 2). No mentor indicated more confidence was required for teaching literacy but five wrote they needed more confidence for teaching science, in order to mentor in this subject more effectively.

INSERT TABLE 2 ABOUT HERE

These mentors ($n=101$) written responses provided further indications of what they required to be more effective in mentoring. Across literacy, numeracy and science there was a clear call for more familiarity with new curriculum documents. To illustrate: 'Further highlight/explore syllabus documents and the teaching implications rather than a quick reference to it with little time for discussion', 'Become more familiar with the new maths syllabus. Develop framework planning template to share with mentees', and 'further inservice; engage in professional dialogue with other classroom searches in same year levels'. The plea for more PD was noted in how some wanted to be informed by current teaching methods through university connections, for instance: 'Being aware of how mathematics is taught at university, more student data and information given to/ discussed with prac teacher prior to commencement of practicum'. They wanted inservicing to be substantial and not piecemeal: 'Full inservice teaching New Maths syllabus', 'Constant inservice/prof development for teachers in mathematics' and time to develop 'common understanding of syllabus and support documents'. For mentors to help others requires them to not only have effective mentoring skills but also understandings about current teaching practices.

In addition to subject-specific professional development, there were also calls for 'specific training in mentoring skills' and wanting 'exposure to other mentors' mentoring (as) a

different point of view', particularly that 'every teacher teaches differently so they need to see different styles of teaching and different age groups'. There was also recognition that working with colleagues would help to advance both their mentoring and teaching skills by 'sharing strategies, approaches, content with colleagues'. The reasons for professional development through other mentors may be noted in the following comment:

I believe that I still need to work on my knowledge base in terms of science. My goal is to familiarise myself more with the curriculum documents, their content and strategies. I believe from observing other teachers and how they structure and implement science lessons. Our school is endeavoring to incorporate curriculum more, assess our current resourcing and to build this for the future.

Aside from more professional development, these mentors needed more resources that would allow them to model teaching more effectively to their preservice teachers: 'Extended use of stimulus or hands- on materials and allowing more time for the preservice teacher to work on all stages of the writing process'. Indeed, there was frustration about the limited resources for teaching mathematics and science, which tends to place further constraints on mentors modelling the teaching of these subjects effectively, as articulated by two mentors here:

I try to link science in with topics studied in other subject areas and I find this reasonable successful. Science equipment in my school is scarce- so this limits units of study. It would be easier to teach if I had the equipment to do so. For example when we studies magnets. I was given 6 magnets to share between 25 students! I bought 10 myself so I could teach effectively!

Science often difficult to teach in primary school where we have no aids/ lab technicians to help us set up equipment needed. Often schools under resources due to financial constraints. Large class sizes- harder for hands on lessons.

Ideally, all schools need 'access to specialist advice and support in the teaching of literacy, numeracy and science' as this 'is likely to be a key to raising achievement levels' (Masters, 2009, p. 9), yet this may not be readily available to all schools. Other mechanisms need to be in place where this support is not available, which will require multiple strategies; one such strategy is through the mentoring process.

Interviews with ten mentors

Interview data from mentors ($n=10$) showed mentoring as a way to gain professional development. Indeed, all but one interviewed mentor agreed they had learnt from their mentoring experiences. They outlined how they developed a greater understanding of explicit mentoring practices with a consciousness about articulating explicit teaching, for instance:

I learnt to be conscious of how I teach... I've been really conscious of the feedback I've been giving her but I've been training myself a lot more in the last four weeks to give that feedback to my students. Just the way I present information, that's probably something I've really gained (Mentor 1).

They indicated that they learnt about themselves as mentors and the types of experiences they needed to provide to their mentees. Mentor 2 outlined her development as a mentor with a focus on deconstructing her teaching so as to provide specific feedback:

I learnt that I needed to be more specific in the feedback that I gave my student teacher... I needed to expose them more to the holistic approach to teaching, involving them or discussing with them how our school programs align through the teaching and learning progress and assessment and how that all operates, how we develop a lot of our units and then break them down into teaching. I now know I need to be a lot more explicit in my feedback.

Nine out of ten mentors (not Mentor 3) emphasised how the mentoring experience assisted their development of their teaching practices. Despite Mentor 3 saying she did not learn anything new from this mentoring experience, she had stated the process of checking assumptions about a preservice teacher's stage of development, to illustrate, 'It's hard when you have a mature-age student because you have that real assumption that they've got a lot of those strategies already but of course if they haven't been in that role as a teacher. Often it's not there'. Mentor 3 also claimed that:

I think that's one of the big bonuses of having a fourth year, you see your kids from a different angle. You sort of get to sit back and reflect a bit on your own teaching while you're watching someone else and watching your own kids do their learning and how they interact... you pick up the children that are not engaged, that you might not have picked up when you're doing the actual teaching yourself because you're so focused and you're working with them all.

In addition, all except Mentor 3 claimed that the MET professional development program assisted them in their own teaching practices. Yet Mentor 3's comments about observing her primary students' interactions allowed her time to reflect on her teaching practices, which could lead towards assisting school students who were 'not engaged'. Advancing classroom management practices constitutes professional development, as the mentor observed teaching, observed students working (and not working), and reflected on these practices for possible intervention; hence instigating changes in teaching practices. In a similar circumstance,

Mentor 4 highlighted the observation of classroom management as a way to advance his practices: 'It's been good to watch the kids... like the behaviours of the kids. Just watch individual students and what they do and their behaviours'. This observation allowed the mentor to reflect and possibly reaffirm teaching practices, which constitutes professional development: 'It was a good opportunity to reflect on what you do when you have a prac student (mentee) and I suppose it reinforces the importance of your role' (Mentor 4). Mentor 6 explained how the mentee's reflection made the mentor think about rationalising and deconstructing her own teaching practices, as teaching often becomes a subconscious action, for example:

I think it did because you reflect, because you do it independently and incidentally I do things, and because I've got to say to her 'okay, I'm doing this lesson because of this...' I found it difficult to explain to her why and how, because I've been teaching for a while so it's very incidental and it's just second nature and I had to step back and think 'oh, yes I do that'.

In this study, classroom management was noted as a key function of the mentoring and it helped mentors to evaluate their classroom management practices. Mentor 9 stated, 'We went through the 10 essential skills (behaviour management) and just showed him how, to explicitly teach each one... so that his classroom management improved'. To illustrate further, as a result of Mentor 5's interaction with her mentee, she said that the mentee 'helped me develop the whole reward system' for the school students. The collaboration between the two allowed for the mentor to discuss ideas with the mentee that gave a forward direction for enhancing the classroom teaching.

These mentors were able to validate teaching practices and reconsider other practices, particularly as the mentor reverts back to a classroom teaching role once the mentee completes the school experience. 'I learnt that I'm doing some things right because my mentee did some observations of me and she related it to theory and that was all very nice (and) it made me realise some of my practices I could probably model better' (Mentor 8). In observing the mentee, the mentor's critical self reflection on teaching practices can advance the structure of teaching within the classroom. 'I'm trying to consider my teaching more fully. I'm sort of considering 'oh, I need to have better conclusions to my lessons'' (Mentor 8). As Mentor 7 explained further,

you always look at yourself differently because you look at yourself through other people's eyes. You challenge yourself more. It's a way being more aware of what I'm saying and what

I'm doing, yes so. And also sort of thinking 'oh, this is quite a traditional kind of classroom', like from other people's views, 'is that actually true?' (Mentor 7)

Indeed, Mentor 4's professional development can be noted through an analysis of the complexities of teaching: 'It makes you realise that teaching is a real art and it makes you look at explicit teaching and the difference of whether if it's done well the kids will be able to do it' (Mentor 4).

These mentors (except Mentor 3) claimed openly that the mentee provided new ideas for the mentors to develop their own teaching practices, for example: 'The preservice teacher brings back all those great ideas, brings a little bit more creativity back into my teaching, and that made me think about maybe I need to do a bit more of that in my teaching' (Mentor 2). These new ideas extended to teaching strategies, such as applying new technologies: 'I always learn. He had fantastic ICT skills so he showed me how to do this projector stuff which was fantastic and just looking at your teaching again' (Mentor 9). New ideas brought to the schools by mentees were considered as favourable professional development, especially for advancing mentors' pedagogical knowledge, such as planning and implementing lesson structures. Articulating 'learning intentions' to school students at the beginning of a lesson is a new reform strategy and one that was not apparent to many of these mentors but became visible once they observed their mentees articulate learning intentions within the classroom.

I really like the way (my mentee) sets up her learning intentions... she sets up before she starts a learning intent so the kids know the goal but it's a visual. It was a different way to look at how the kids responded to the way she was teaching it, so when she set the intent out very clearly to them they understood where they were going I think because it was always in front of them as opposed to just the oral presentation of that information. (Mentor 5)

All mentors (except Mentor 3) claimed that the mentoring experience assisted their own pedagogical knowledge (e.g., planning and implementation), particularly reform measures that have been undertaken during university coursework and may not have filtered into the school system because of lack of professional development opportunities, for instance:

Making me aware, it's really pushed as a student that you have like your lesson and you've got your objectives, your goals, you state those, you state your expectations, and that lesson structure has really tuned me into... I class myself to be quite a confident competent teacher but to see the lesson plan on paper and getting my student to write the lesson plan and then me I've realised 'okay' and I've just learnt ... I do it but I've made more of a conscious effort to do

it all in my lessons and just push those goals and tell the children and give that feedback once again. So it's sort of brought me back into really setting out a structured lesson. (Mentor 1).

Mentors reported that they enhanced their communication skills for articulating their pedagogical knowledge more understandably to a mentee, thus a doubling effect for advancing both mentoring skills and teaching skills. For instance, Mentor 7 outlined her assessment analysis process towards devising a report card, which needed to be justified and articulated clearly to the mentee:

There are skills that you have to have to be able to teach... then having to justify it to someone else, saying 'why am I collating all this information, like surveys, collating all this information and putting it together and then finding an average and then being able to put it on a report card?' (Mentor 7).

Mentoring allowed mentors to analyse specific issues and problem solve with the mentee, which is noted by Burns (1978) and others as a leadership skill, which was inferred in Mentor 4's action: 'The way of helping him to improve, defining exactly what the issues were and then helping him to improve in that area'. Indeed, most mentors had inferences to leadership and capacity building. 'Just getting some feedback from my mentee and seeing her blossom, seeing her relax in her role in the classroom and take over from me' (Mentor 8). Mentor 10 highlighted her pedagogical knowledge and mentoring skills to face 'our biggest challenge together' and she presented a leadership role when stating, 'What is it I need to do to make sure that their needs are being satisfied' (Mentor 10). Mentoring motivated classroom teachers in their roles as mentors to step-up-to-the-plate not only for mentoring but also for teaching: 'it's nice to have the student teachers come in because you pick yourself up and go 'right, now am I doing what I expect them to do?' and you double-check yourself' (Mentor 9). Mentoring allowed these mentors to reconsider preservice teachers' developmental stages to provide appropriate support: 'She's been the first second year prac student I've had. I've always had a third or a fourth year, so they've been pretty much independent' (Mentor 6). Most importantly, as a learning for mentors and resounding once more the key aspects of reflection and making pedagogical knowledge explicit is shown in Mentor 10's comment, 'it's just making me reflect more deeply upon what I'm doing, how I'm doing it, why I'm doing it... you can't presume anything (and) make things very explicit for them'.

Discussion and conclusion

This study showed that mentoring acts as professional development, where the majority of these mentors surveyed engaged mentees across the pedagogical knowledge practices in each of the subject areas (literacy, numeracy, and science) for not only the mentees' development but also for their own development. The interviewed mentors articulated that mentoring acted as professional development, where they observed mentees teaching and presented feedback to them by reflecting on and deconstructing their pedagogical knowledge practices. The interviewed mentors explained that mentoring allowed for engagement with new practices (e.g., lesson intentions, ICT usage, and creative lesson ideas) to assist them in their own teaching practices. Taking into account these preservice teachers have university coursework that guides them towards effective teaching practices, the in-school component consolidates, validates, and demonstrates teaching in practical terms for them. For mentors, enhancing communication skills, developing leadership roles (problem solving and building capacity), and advancing pedagogical knowledge were noted as additional mentoring and teaching benefits.

Mentoring professional development must be a priority for education departments. Investing in teachers' professional development to become well-informed mentors can build system capacity on two fronts, namely: (1) mentors can more effectively educate their mentees, and (2) mentors can build their pedagogical knowledge by engaging with their mentees. Mentors, as preservice teacher educators, must be prepared in their roles by having particular knowledge to take deliberate action in their mentoring, and by developing specific skills to critique constructively both their own teaching practices and their mentees' practices (Rush et al. 2008). Just as teachers require professional development to engage with education reform measures, 'mentors need guidance and training as they develop the skills necessary to become effective mentors' (Upson, Koballa, & Gerber 2002, p. 4) and learning these mentoring skills can be used to advance their teaching practices.

Teachers need professional development to keep current with pedagogical practices and the changing curriculum. Education departments and universities have a responsibility to facilitate professional development in the field of mentoring early-career teachers. However, teachers have limited time during class hours to be involved in professional development, and times outside class time can be taken up with planning, marking and other professional works. In addition, a one-off professional development occasion is deemed to have limited impact (van den Berg 2001). 'High quality professional development also must be available in ways

that allow it to be tailored to local teacher and school requirements' (Masters 2009, p. 9). Mentors can aim to work more productively with their mentees by focusing not only on the mentees' growth and development but also on what they may require to advance their teaching practices. Taking on a new mentoring role can act as professional development to advance the mentor teacher's knowledge and understanding of the profession (Chow et al. 2004; Simpson et al. 2007). For example, teachers in their roles as mentors can facilitate new understandings about teaching by engaging purposefully with their preservice teachers, whether it is learning how to use an electronic whiteboard or the latest teaching strategies the preservice teacher had encountered at the university.

Mentoring must be recognised and rewarded as professional development with acknowledged professional development hours not only through approved professional development programs (e.g., see www.tedd.net.au) but also through the actual mentoring experience (Rajuan et al. 2007). Other recognitions for mentors from their university partners can include: university library access privileges, awards for outstanding mentors nominated by their mentees, free attendance to particular university seminars, and other professional acknowledgements (see also Ralph, Walker, & Wimmer 2008). Some of these recognitions may address the plea for more PD. New reform measures require teachers to engage with new curricula materials for which mentoring can provide extended opportunities and benefits. In a parallel manner, professionally developing mentors on current mentoring practices can allow them to take advantage of their own learning. Indeed, mentors who do not have knowledge about current mentoring practices may be limiting their mentees' opportunities to succeed in the classroom.

Despite barriers to the mentoring process, for instance, mentors have reported frequently about inadequate time for mentoring because of teaching workloads, mentoring as professional development can assist to address potential issues such as managing mentor's time efficiently and productively. In addition, using a theoretical and empirical framework (e.g., Hudson 2010) can scaffold mentors in their practices towards gaining maximum benefit. As mentoring is used to advance a mentee's teaching practices, professional development on mentoring practices may further enhance this process. The message is clear that investment in mentors' professional development can help build teaching capacity for both mentors and mentees.

Acknowledgements: This work was conducted within the Teacher Education Done Differently (TEDD) project funded by the *Australian Government Department of Education, Employment and Workplace Relations (DEEWR)*. Any opinions, findings, and conclusions or recommendations expressed in this paper are those of the authors and do not necessarily reflect the views of the DEEWR. I would like to acknowledge the work of Dr Sue Hudson as Project Leader, Jenelle Edser as the TEDD Project Officer, and Dr Michelle Murray as the TEDD Research Assistant.

References

- Allen, D.D. Cobb, J.B. and Danger, S., 2003. Inservice teachers mentoring aspiring teachers. *Mentoring & tutoring: Partnership in learning*, 11 (2), 177-182.
- Beutel, D. and Spooner-Lane, R., 2009. Building mentoring capabilities in experienced teachers. *The international journal of learning*, 16 (4), 351-360.
- Boyer, I., Maney, B., Kamler, B. and Comber, B., 2004. Reciprocal mentoring across generations: Sustaining professional development for English teachers. *English teaching: Practice and critique*, 32 (2), 139-150.
- Burns, J.M., 1978. *Leadership*. New York: Harper Torchbooks.
- Campbell, M.R. and Brummett, V.M., 2007. Mentoring preservice teachers for development and growth of professional knowledge. *Music educators journal*, 93 (3), 50-55.
- Chow, A.W.K., Tang, S.Y.F. and So, K.S., 2004. Mentoring others and developing self: Teacher learning and development. *The Asia Pacific education researcher*, 13 (1), 57-86.
- Clarke, A., Triggs, V. and Nielsen, W.S., 2012, April. Cooperating teachers: A review of literature from 1948-2011. Paper presented at the American Educational Research Association, Vancouver, BC.
- Creswell, J.W., 2012. *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th Edn.). Upper Saddle River, NJ: Pearson Education Inc.
- Davis, B. and Higdon, K., 2008. The effects of mentoring/induction support on beginning teachers' practices in early elementary classrooms (K-3). *Journal of research in childhood education*, 22 (3), 261-274.
- Fullan, M., 2008. *The six secrets of change*. (1st ed.). San Francisco: Jossey-Bass.
- Galbraith, M. W., 2003. The adult education professor as mentor: A means to enhance teaching and learning. *Perspectives: The New York Journal of Adult Learning*, 1 (1), 9-20.

- Giebelhaus, C.R. and Bowman, C.L., 2002. Teaching mentors: Is it worth the effort? *Journal of educational research*, 95 (4), 246-254.
- Gilles, C. and Wilson, J., 2004. Receiving as well as giving: Mentors' perceptions of their professional development in one teacher induction program. *Mentoring & tutoring: Partnership in learning*, 12 (1), 87-106.
- Goldsmith Roberts, P.S., 2011. *Identifying quality mentoring based on new teacher perceptions of professional development*. PhD Dissertation, University of Denver.
- Hobson, A.J., Ashby, P., Malderez, A. and Tomlinson, P.D., 2009. Mentoring beginning teachers: What we know and what we don't. *Teaching and teacher education*, 25 (1), 207-216.
- House of Representatives Standing Committee on Educational and Vocational Training., 2007. *Top of the class: Report on the inquiry into teacher education*. Canberra: The Parliament of the Commonwealth of Australia.
- Hudson, P., 2010. Mentors report on their own mentoring practices. *Australian journal of teacher education*, 35 (7), 30-42.
- Lopez-Real, F. and Kwan, T., 2005. Mentors' perceptions of their own professional development during mentoring. *Journal of education for teaching*, 31 (1), 15-24.
- Masters, G.N., 2009. *A shared challenge: Improving literacy, numeracy and science learning in Queensland primary school*. Camberwell, Victoria: Australian Council for Educational Research.
- Newby, T. and Heide, A., 1992. The value of mentoring. *Performance improvement quarterly*, 5 (4), 2-15.
- O'Brien, P. and Goddard, R., 2006. Beginning teachers: Easing the transition to the classroom. *Australian educational leader*, 28 (1), 28-31.
- Rajuan, M., Beijaard, D. and Verloop, N., 2007. The role of the cooperating teacher: Bridging the gap between the expectations of cooperating teachers and student teachers. *Mentoring & tutoring: Partnership in learning*, 15 (3), 223-242.
- Ralph, E.G., Walker, K. and Wimmer, R., 2008. The clinical/practicum experience in professional preparation: Preliminary findings. *McGill journal of education*, 43 (2), 157-172.
- Rippon, J.H. and Martin, M., 2006. What makes a good induction supporter? *Teaching and teacher education*, 22 (1), 84-99.
- Rush, L.S., Blair, S.H., Chapman, D., Codner, A. and Pearce, B., 2008. A new look at mentoring: Proud moments and pitfalls. *Clearing House*, 81(3), 128-132.

- Simpson, T., Hastings, W. and Hill, B., 2007. 'I knew that she was watching me': The professional benefits of mentoring. *Teachers & teaching*, 13 (5), 481-498.
- Stanulis, R.N., 1995. Classroom teachers as mentors: Possibilities for participation in a professional development school context. *Teaching and teacher education*, 11 (4), 331-344.
- Tang, S.Y.F. & Choi, P.L., 2005. Connecting theory and practice in mentor preparation: Mentoring for the improvement of teaching and learning. *Mentoring and tutoring*, 13 (3), 383-401.
- Upson, L., Koballa, T. and Gerber, B., 2002, January. *Preparing science specific mentors: A look at one successful Georgia program*. In: Proceedings of the Annual International Conference of the Association for the Education of Teachers in Science, Charlotte, NC.
- van den Berg, E., 2001. Impact of inservice education in elementary science. *Journal of science teacher education*, 12 (1), 29-45.
- West, P.R., 2002. 21st century professional development: the job-embedded, continual learning model. *American secondary education*, 30 (2), 72-81.
- Zachary, L., 2009. Examining and expanding mentoring practice. *Adult learning*, 1, 43-45.
- Zeichner, K., 2010. University-based teacher education: Rethinking the connections between campus courses and field experiences in college- and university-based teacher education. *Journal of teacher education*, 61 (1-2), 89-99.