

Making mentoring explicit: Articulating pedagogical knowledge practices

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Abstract

Mentoring pedagogical knowledge is fundamental towards developing preservice teachers' practices. As a result of a train-the-trainer mentoring program, this study aimed to understand how mentors' engagement in a professional development program on mentoring contributes to their mentoring of pedagogical knowledge practices. This qualitative research analyses the mentoring of pedagogical knowledge from six paired mentor teachers and preservice teachers ($n=12$) after a four-week professional school experience. Findings indicated the train-the-trainer model was successful for mentoring pedagogical knowledge on 10 of the 11 advocated practices. This suggested that a well-constructed professional development program on mentoring can advance the quality of mentoring for enhancing preservice teachers' practices.

Keywords: Mentor, preservice teacher, mentoring, pedagogical knowledge

Introduction

Teachers' complex practices assist student learning, hence, those learning to teach need to understand the complexities of pedagogical knowledge practices. An effective mentor teacher can provide preservice teachers (mentees) with explicit directions for advancing pedagogical knowledge development. This paper presents experienced mentors' ($n=6$) and their mentees' ($n=6$) articulation of mentoring pedagogical practices after a four-week professional experience. More specifically, it explores mentors' perceptions on how they had developed the mentee's pedagogical knowledge and the mentees' perceptions on how their respective mentors had developed their pedagogical knowledge.

Explicit Mentoring of Preservice Teachers

For more than two decades, mentoring has superseded supervision as a professional approach for developing preservice teachers' pedagogical practices within school contexts (Hudson, 2010a; Little, 1990; Perry, 2000). As a term, supervision did not appear to embrace the importance of the relationship for advancing teaching practices (e.g., see Margolis, 2007; Rippon & Martin, 2003). However, in its early stages mentoring was without an operational definition; consequently development of mentoring knowledge in education was viewed as haphazard (Wildman, Magliaro, Niles, & Niles, 1992). It was later noted that an expanded definition of mentoring would aid the mentor's role by making mentoring practices more explicit (Mullen, Whatley, & Kealy, 1999). There are now many definitions linked to mentoring extending from a structured arrangement within a professional mentor-mentee relationship that "focuses on the needs of the mentored participant" (Soutter, Kerr-Roubicek, & Smith, 2000, p. 23) to "a planned and intentional process" (Long, 1997, p. 115). In this current study, mentoring involves a productive and professional relationship between a preservice teacher (mentee) and an experienced teacher (mentor).. In a mentoring role, the mentor uses personal attributes to model and articulate the education system requirements and pedagogical knowledge for guiding the mentee's development. The mentor's role also includes providing feedback on the mentee's practices to assist the mentee for thinking more critically, perceiving solutions to problems, and analysing situations from different perspectives (see e.g., Hudson, 2007). In this current study, the term *mentor* or *mentor teacher* was used as a clear shift from a supervisory term, as the term mentor indicates a nurturing role with responsibilities that aim to build teaching capacity (see also Ackley & Gall, 1992; Feiman-Nemser & Parker, 1992; Ganser, 1995, 1996).

Mentoring can be haphazard and left to chance with mentors and mentees claiming significant differences in their mentoring experiences (Ganser, 1996), necessitating calls for more explicit mentoring for developing the mentee's capacities for teaching (e.g., Hudson, 2010b; Margolis, 2007). There needs to be systemic approaches for ensuring quality mentoring programs, particularly as many educators outline the inequities in the quality of mentoring experiences for preservice teachers, including the quality of placements (Christie, Conlon, Gemmell, & Long, 2004) and a lack of understanding of the mentoring process (Long, 1997). Increasing the quality and pool of mentors can address these inequities and inadequacies in mentoring (Hudson, 2010a, 2010b).

Educational theorists (e.g., Gormley, 2008) and researchers (Margolis, 2007; Rippon & Martin, 2003) indicate that the quality of the mentor-mentee relationship is paramount to the

mentee's development as a beginning teacher. Even though effective mentoring must incorporate the mentor's personal attributes for engaging productively with the mentee, it must also extend to knowledge of practical and successful pedagogical practices. It is argued (e.g., Hudson, 2010a, 2010b; Leikin, 2005) that the function of a theoretical framework for mentoring can provide quality dialogue between the mentor and mentee with a focus for enhancing the mentee's practices. Indeed, there appears to be little quality assurance or effectiveness measures for mentoring, which largely reduces the capacity of an education system to be advanced at these very formative stages.

An obstacle to quality mentoring is the limited professional development afforded to experienced teachers to undertake these roles (e.g., Ganser, 1996; McCann & Johannessen, 2009). For instance, compared with Australian state and national standards assigned to teaching (<http://www.teacherstandards.aitsl.edu.au/>), it is an anomaly that mentoring has no set standards, which undervalues the importance of the mentor's role within the university-school partnership for advancing teacher education. Hulshof and Verloop (1994) state that the mentor "has more influence on the student teacher than any other person in pre-service teacher education" (p. 25). Preservice teachers need to interact with someone skilled and knowledgeable. Research (Abell & Bryan, 1999; Bishop 2001) has shown that developing effective primary teaching requires the acquisition of pedagogical knowledge, which itself requires expert and experienced guidance due to the contextual and complex nature of pedagogical knowledge (Morine-Dersheimer & Kent, 1999; Shulman, 1986).

Research has shown the variability in mentoring practices from both mentors' and mentees' perspectives. Although many preservice teachers claim their mentoring was random and haphazard (Hudson, Skamp, & Brooks, 2005), mentors also reported on their own mentoring as variable (Hudson, 2010a). For example, Table 1 shows how mentors and mentees perceive the mentoring of pedagogical knowledge for teaching primary science and primary mathematics. Both mentors and mentees agreed that mentees received more mentoring in mathematics than science, probably because mathematics has more teaching time allocated within the weekly timetable in the primary school. Considering science and mathematics are key learning areas in the primary school, Table 1 shows that mentors claim they mentor pedagogical knowledge practices more than the mentees claim to have received this mentoring. This discrepancy between mentors and mentees indicates that either the mentoring did not occur or was not explicit enough to be recognised by the mentees. Hence, Table 1 highlights the variability of mentoring practices associated with articulating pedagogical knowledge.

Table 1

Mentees' and Mentors' Perceptions of Mentoring Pedagogical Knowledge in Primary Science and Mathematics

Mentoring Practices	Mentees		Mentors	
	Science (n=331)*	Mathematics (n=147)**	Science (n=29)***	Mathematics (n=43)***
Assisted in planning	37	64	79	90
Assisted with timetabling	44	67	72	91
Guided preparation	45	71	77	95
Assisted with teaching strategies	41	68	72	91
Discussed content knowledge	35	52	69	65
Discussed problem solving	25	57	52	68
Guiding classroom management	44	73	86	98
Discussed questioning techniques	31	57	76	72
Discussed implementation	35	77	76	91
Discussed assessment	31	52	79	84
Provided viewpoints	35	61	52	65

* Percentage of mentees agreeing that the specific mentoring practice occurred (Hudson, 2004).

** Percentage of mentees agreeing that the specific mentoring practice occurred (Hudson, 2007).

*** Percentage of mentors agreeing that the specific mentoring practice occurred (Hudson, 2010b).

Theoretical Framework for this Study

This study uses a theoretical framework associated with differentiating the curriculum that emphasises pedagogical knowledge practices (Figure 1). This framework draws from Hudson's (2007) mentoring model (Table 1; see also www.tedd.net.au for further descriptions of the five factors used in this model for which pedagogical knowledge is one factor) and focuses on 11 pedagogical knowledge practices for advancing the mentee's teaching (see Figure 1), which are outlined succinctly in the following.

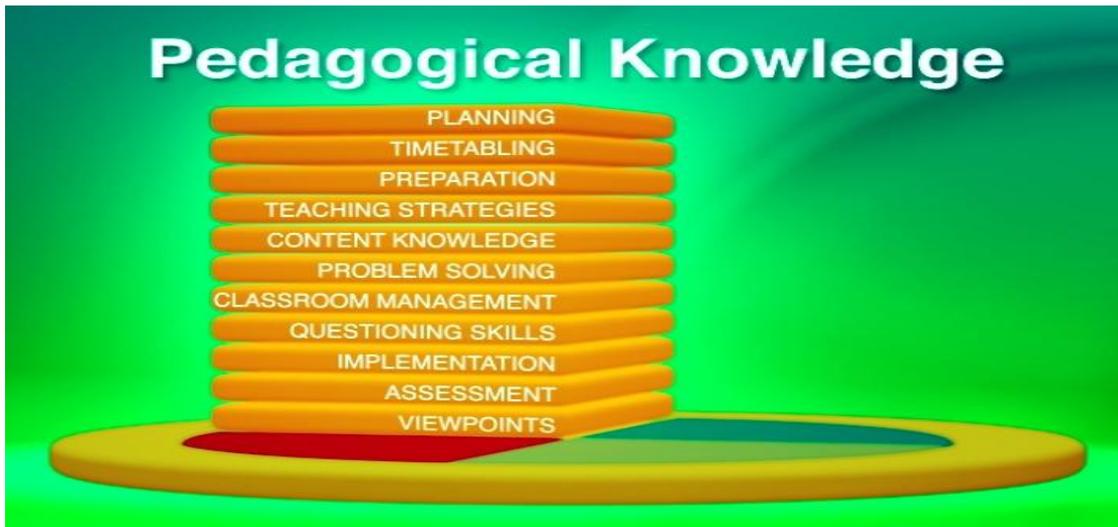


Figure 1. Pedagogical knowledge for mentoring

The mentor needs to provide advice around the mentee's planning for teaching to ensure plans meet expected standards for teaching and learning (Rush, Blair, Chapman, Codner, & Pearce, 2008). Practices associated with the development of pedagogical knowledge include: timetabling (scheduling) lessons (Williams, 1993), preparation for teaching (Rosaen & Lindquist, 1992; Youens & McCarthy, 2007), suitable teaching strategies (Jeanpierre, 2007; Lappan & Briars, 1995), appropriate content knowledge (e.g., Burn, 2007; Cleaves & Toplis, 2008; Youens & McCarthy, 2007), problem solving within lesson implementation (Ackley & Gall, 1992) for which Schön (1987) identifies as reflection in practice, classroom management (e.g., behaviour management; Corcoran & Andrew, 1988; Feiman-Nemser & Parker, 1992; McKinney, Campbell-Whately, & Kea, 2005), questioning techniques (e.g., Jeanpierre, 2007), implementation of the lesson (e.g., lesson structure, timing; Briscoe & Peters, 1997; Jeanpierre, 2007), assessment (Corcoran & Andrew, 1988; Tillema, 2009), and the mentor's viewpoints about effective teaching (e.g., Jonson, 2002; McKinney et al., 2005; Tillema, 2009).

The study aimed to explore mentors' perceptions on how they had developed the mentee's pedagogical knowledge and the mentees' perceptions on how their respective mentors had developed their pedagogical knowledge.

Context and Research Design

The data in this study were collected from mentors ($n=6$) and their mentees (preservice teachers, $n=6$) at two Australian primary schools. These preservice teachers were involved in a four-year Bachelor of Education degree, which required them to undertake a four-week

block practicum towards the end of the university semester. The mentors were invited to be participants in this study as they had been involved in a mentoring professional development program and were assigned preservice teachers to mentor during the four-week school experience. From each school, one or more classroom teachers had undertaken the two-day Mentoring for Effective Teaching (MET) program at the host university campus. As a train-the-trainer approach, these classroom teachers then facilitated the two-day MET program within their own schools to a range of school professionals, including five of the mentors involved in this study. The sixth mentor (Mentor 6) was one of the classroom teachers facilitating the MET program to her colleagues.

The MET program (see www.tedd.net.au) was based around a range of topics linked to effective mentoring, for example: (1) Mentoring and the mentor-mentee relationship, (2) School culture and infrastructure, (3) Hudson's (2007) mentoring model (i.e., five factors for mentoring: personal attributes, system requirements, pedagogical knowledge, modelling, and feedback), (4) Problem solving and leadership, and (5) Action research for enhancing mentoring and leadership practices. Each topic had interactive activities that utilised teaching strategies to maximise participation. For instance, an A3 diagram of pedagogical knowledge (Figure 1) was provided to participants to record strategies associated with the 11 pedagogical practices and then to discuss these strategies with their colleagues.

The mentees involved in this study were in their third and fourth years of a four-year Bachelor of Education program conducted at an Australian university. The paired mentors (all females) and mentees (all females except Mentee 3) were interviewed individually in the school setting at the conclusion of their four-week professional experience. Through interview data, this case study investigated six mentors' and six mentees' mentoring of pedagogical knowledge, including the mentoring strategies used to facilitate pedagogical knowledge in the mentee. For example, participants were asked questions on the pedagogical knowledge practices assigned to the mentoring process (see Figure 1). Restrictions in the availability of mentors and mentees for interview lead to explicit questions regarding timetabling, questioning techniques, implementation, and viewpoints being omitted.

As an interpretive study (Patton, 1990), a semi-structured script was used to interview mentors and mentees. The interview design was such that it allowed scope for probing interviewees for more in depth responses and for clarifying responses. The interviews were conducted and audio recordings transcribed by the same author (Murray). Data were gathered according to ethical standards (e.g., informed participant consent, guaranteed anonymity and confidentiality; Patton, 1990). In order to increase validity of the research findings, the

authors initially worked individually to collate the data within the aforementioned pedagogical knowledge practices (Figure 1) and complete preliminary analysis, before conducting triangulation to reach a consensus (Miles & Huberman, 1994).

Findings

Six mentors and their respective mentees were interviewed individually about their mentoring of pedagogical knowledge practices. Table 2 outlines the mentoring of pedagogical knowledge practices indicated by these mentors and mentees. The majority of mentees and mentors shaped their discussions around 10 of the aforementioned 11 pedagogical knowledge practices. Questioning techniques were omitted from mentor-mentee discussions. The following presents qualitative data and analysis around the mentoring of pedagogical knowledge.

Table 2

Mentoring of pedagogical knowledge practices indicated by mentors and mentees

Mentoring Practices	Mentees						Mentors					
	1	2	3	4	5	6	1	2	3	4	5	6
Assisted in planning	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Assisted with timetabling			✓	✓		✓	✓		✓	✓	✓	✓
Guided preparation	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓
Assisted with teaching strategies	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓
Discussed content knowledge			✓				✓	✓	✓	✓		✓
Discussed problem solving	✓		✓	✓	✓	✓			✓	✓	✓	✓
Guided classroom management	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Discussed questioning techniques												
Discussed implementation	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Discussed assessment	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Provided viewpoints	✓		✓	✓		✓	✓	✓	✓	✓	✓	✓

✓=respondent identified and discussed the mentoring practice

Planning for teaching

Mentors varied their intensity and approaches for assisting the mentee using macro, meso and micro level techniques for planning. At the macro levels, mentors and mentees explained the use of school and system documents to meet educational requirements. For instance, Mentee

3 outlined how his mentor provided “a copy of the units of work for the whole semester, [... and] a template of the lesson plans, [...] the Essential Learnings, [...] the scope and sequence”.

The meso level planning included timetabling and discussing how theoretical underpinnings inform teaching practices for upcoming lessons. Indeed, mentor-mentee dialogues about planning were considered timely, fluid and advantageous for making theory-practice connections for the classroom. To illustrate, Mentee 2 explained that her mentor “brought more of the pedagogy [... and] talked about all of those kinds of theories and theorists and putting them into place into your lessons”. More specifically, this mentor-mentee pair discussed “certain things around dimensions of learning, the De Bono’s thinking hats, they’re the pedagogies the sort of things that I use in my classroom, the [Bybee’s] five Es” (Mentor 2). It was claimed by Mentee 2 that her mentor did not review specific lesson plans but rather “bounce[d] ideas off each other about what will work and what won’t work”. Mentor 2 confirmed that verbal dialogue was used rather than explicitly reviewing the written plans: “Ours comes through like we do a lot of talking”.

Micro level mentoring about planning for teaching focused on the particulars of the lesson, including the timing of lessons. For example, Mentee 3 recounted his mentor as providing an understanding that he was planning to cover too much in one lesson: she [Mentor 3] said ‘you could really break that into three lessons, three thirty to thirty-five minute lessons’. Reassurance was sought by the mentees to ensure their planning was in line with their mentors’ expectations: And I’m constantly asking her, you know, ‘am I on the right track? is this what you want? is that what you want?’ (Mentee 3).

Planning needed dedicated time, which also varied between mentors and mentees. Mentee 3 noted that “she’s given me a good week, you know, week or two weeks’ notice so say ‘right this is what you’re teaching, how are you with that?’” and Mentee 1 claimed her mentor worked with her “every Friday afternoon we’d do the next week’s planning”. While planning discussions appeared to occur with plenty of time for mentees to produce written plans, the reviewing of lesson plans occurred at much shorter notice. Mentee 3 said his mentor reviewed teaching plans the “day before but otherwise it’s first thing in the morning”. Similarly, Mentee 1 claimed it was “usually the morning of [the lesson]” but Mentee 4 attempted to “have them [completed] two days in advance” so that there would be ample time to implement any further suggestions from her mentor. As practicum progressed, some mentees (4 and 6) believed their mentors felt more “confident and comfortable” (Mentee 4) with their planning and, as such, the mentors were less prescriptive and relaxed the requirement for lessons plans to be produced well in advance of delivery. Furthermore,

mentors varied their approaches for assisting their mentees according to their schedules; however they indicated frequent dialogues at the macro, meso and micro levels of planning.

Assisted with timetabling

Mentees were privy to their mentors' weekly planning for primary teaching, particularly as teachers generally have autonomy over how they structure their weekly plans. Mentor 1 outlined that planning was professionally personal "but I've showed her how I structure [my weekly timetable] with my literacy block in the morning and then the maths and the integrated studies and the documents that we use". Similarly, Mentee 6 confirmed that during regular meetings her mentor would "show me the best times of day to do certain activities". Yet, mentors appeared to give more attention to the overall structure of the day. For instance, Mentors 4 and 6 recounted how they encouraged their mentees to adopt a flexible approach to planning in the primary classroom and their mentees verified this. Mentee 4 stated, "Mentor 4's actually quite well developed that in me, you know, that you need to be flexible. [...] So things change, things move, things get pushed forwards, things get pushed backwards and so the flexibility has to be there". Specifically, Mentor 6 advised her mentee on the suitability of activities according to curriculum priorities and students' levels of attentiveness and, thus, Mentee 6 recognised the need "to be really flexible with my planning".

Preparation for teaching

All mentees (except Mentee 6) acknowledged the support they received from their mentors in terms of access to teaching resources. These resources outlined by mentors and mentees included: classroom resources, library resources, Internet sites, books, worksheets and access to support staff. For example, Mentor 3 provided her mentee with a range of resources and starting points to assist her mentee's teaching:

So things like web addresses that I'm aware are really great resources. Providing them with the scaffolds particularly with the genre studies. Giving some ideas on how if I were taking the lesson some things that I might focus on.

Drawing upon a community of mentors as human resources, Mentee 4 revealed that her mentor had suggested she "talk to other teachers in the same year level [to] get as many different varying opinions of how they might teach a particular lesson". This recognises that teaching draws upon experienced personnel as a crucial resource, which requires an open-mindedness to other perspectives, particularly with the varied contexts of students. Two

mentors (1 and 6) indicated that preparation for teaching also encompassed the modelling of lessons when specific formats or established approaches were to be followed (e.g., students' pencil grip and posture during handwriting lessons).

Teaching strategies

The mentees claimed they had gained greater insights from their mentors in relation to productive pedagogical practices and management of student learning by observing their mentor teachers' interactions with students. In line with this, a number of mentors commented on how they explicitly modelled teaching strategies for their mentees. For example, Mentee 3 commented that his mentor suggested,

‘notice how I did this, something for you to look at for the next lesson, try this strategy, try that strategy’ and she says that, you know, ‘this works for me, it may not work for you, [and] something you do may not work for me’.

Discussion of teaching strategies between mentors and their mentees appeared to be commonplace. Strategies included age-appropriate techniques, methods for group work, and catering for diversity in students' learning. Mentee 5 reported her mentor “suggested to do stuff to cater for diversity like fast finisher activities and support for those students who need it”. In combination with catering for diversity, Mentor 4 had impressed upon her mentee the need to recognising struggling students and those requiring extension in order to differentiate learning. Mentee 4 stated that:

Some of the other teaching strategies that Mentor 4's discussed with me are identifying the students that may struggle, extending the others, getting them moving on, and then coming back and working with the other students who might need that extra assistance and time. Or having another student come and help with those students as well. So if I can't give them the understanding from my side maybe another student explaining it might give them the understanding.

The mentoring of teaching strategies appeared very specific to the varied classroom contexts.

Content knowledge

Ensuring mentees had the required content knowledge for teaching was important to mentors, as indicated by Mentor 1's comment: “It's like with your kids, you don't assume that they know something so you just make sure that they understand before.” The majority of mentors

explored content knowledge implicitly through discussions prior to planning and by reviewing their mentee's lesson plan and giving them feedback about the type of things they would need to cover or give further attention. Generally, mentors did not discuss the specifics of the content knowledge. To illustrate, Mentee 5 acknowledged that her mentor "checked my lesson plans but not specifically whether I know what something is". Some mentees suggested that it was just expected that they would have the required content knowledge. For instance, Mentee 4 commented:

The expectation is there, that I need to know it. [...] I think it's something that I've brought in from my own perspective. [...] I think that also Mentor 4's sort of portrayed that as well, that she needs to be on top of what she's teaching. So it's sort of been implied ... hasn't been explicit but it's been implied that you need to know the content.

Yet, there were some explicit examples of mentors discussing content knowledge with the mentees. Mentee 3 believed his mentor was checking his content knowledge through feedback on lesson plans and direct questioning. For example, he recounted his mentor as having said "the content you're covering is really good, it's exactly what they need" and "how are you with, you know, pi?" Indeed, Mentor 3 advocated questioning the mentee's content knowledge in the upper grades such as Year 7 mathematics. Mentor 3 stated, "So if you're teaching formulae these are the formulae and giving him that content myself prior rather than just assuming that he will go and find it. I think that is essential". As indicated, there were variations in mentoring content knowledge according to the grade levels and the methods of reviewing teaching plans.

Problem solving

All but one mentee indicated that their mentors had assisted them to solve a problem within the classroom. These discussions primarily revolved around expectations of students, classroom rules, and students' engagement. For instance, Mentee 3 spoke to his mentor about the types of behaviour he should address with students and what behaviours could be overlooked:

I did say to her 'I'm coming in as a new guy, I don't know how far to push them like or when to pull them up, you know. What sort of little things that are acceptable and what's not?' And she said, 'Keep your eye on what I do and those sort of things.

You're welcome to jump on anything that you find that you don't like or you find is inappropriate, you're more than welcome to jump in and say it as well'.

Mentee 3 listened to his mentor's advice and addressed an issue that was bothering him with his students. He stepped in to address students on what he claimed was a problem that his mentor had overlooked:

I said [to the students] 'guys I've really got to bring this up, it's bugging me, I've heard it a couple of times now, I'm not happy, calling each other stupid and, you know, idiots really needs to be stopped' and I gave the reasons and we had a bit of a discussion about it, explained that, you know, it's really attacking them personally rather than what they've said or the idea or so forth.

Other mentees (5 & 6) spoke with their mentors about how to manage students who had finished work earlier than other students. Mentor 5 noted that her mentee had an activity on the carpet for early-finishing students who had completed their measurement activity. The early-finishing students were supposed to draw relevant pictures but they became distracted and off task as the mentee continued working with other students requiring support. Through mentor-mentee discussions, the next time students finished early Mentee 5 had these students remain at their desks and "it worked much better that she did it that way and the kids were more focused and they actually got something out of the activity" (Mentor 5). Mentor 4 provided emotional support as well as tangible support to assist her mentee on a lesson that did not run effectively. For instance, Mentee 4 recalled her mentor as saying "it's okay, it happens to all of us, all lessons don't go brilliantly" and subsequently "being reflective and talking to her [Mentor 4] about what actually happened, why I thought it happened" to improve teaching for a future lesson. The problem solving mainly related to classroom management (e.g., student behaviour) and not other issues that may have arisen during the implementation of the lessons.

Classroom management

All mentees claimed that their mentors articulated valuable classroom management strategies, particularly with managing students' behaviour. The mentees explained that knowledge about classroom management strategies was also gained through explicit mentor modelling of practices, as well as discussing schools' behaviour management policies. To illustrate, Mentee 4 became more aware of the importance of getting to know each student so that she could effectively group students. Mentee 1 outlined a range of different management

techniques, including arranging seating effectively, keeping behaviour books, and maintaining reward systems (e.g., points, smiley faces), as did Mentee 6 who reported that her mentor constantly reinforced class expectations and used attention grabbing strategies such as clapping hands, hands on heads, and ringing a small bell. Mentee 6 said she learnt that not all behaviour needed to be addressed, some behaviours could be ignored (e.g., behaviour that is not disruptive); though caution must be exercised to ensure students are on task even when good behaviour is occurring. Mentor 3 recommended altering classroom management strategies based on the type of activity (formal or informal) and the dynamics of the class. She proposed that classroom management decisions need to be based around:

what the activity is and whether the activity's a formal activity [or] more of an informal activity, and judging where your behaviour management strategies need to come in and what level you're going to let the kids get to before it's time to sort of step in.

The mentors emphasised that they focused on discussing and modelling behaviour management. Mentor 6 discussed with her mentee "giving responsibility to certain children to perhaps disperse their negative behaviour a little bit and provide role models of the other children as well" and Mentor 2 said her mentee's classroom management was developed through "observing how behaviour management was conducted in the classroom and then going and modifying something that works for her". Most mentors recommended establishing classroom expectations from the very beginning. For example, Mentee 4 stated that her mentor had suggested "set your expectations so that they [the students] know and then you can start to relax off with them". Mentors and mentees claimed that the mentors provided classroom management strategies from a system approach to informal suggestions like the school's behaviour management policy and then providing clear directions such as "just keep your eye on the whole classroom the whole time" (Mentee 3). Mentor 3 guided her mentee about strategic proximity within the classroom so that he could better monitor students' level of engagement. Mentee 3 recalled:

She [Mentor 3] said 'You're better off to be at the front of the class.' So the following lesson I did that, I stood right at the very front of the class, walked down clicked for the next slide, walked back to the front of the class and constantly scanning front of the class and the difference was amazing.

Importantly, as illustrated above, the mentees acknowledged that they often used classroom management strategies suggested by their mentors and found success in using these strategies with the students.

Questioning techniques

There was no explicit interview question concerning questioning techniques and, consequently, there were no interview responses to show that the mentors had discussed open and closed questioning techniques or levels of questioning such as higher and lower-order questions (e.g., Bloom's Taxonomy). There was also no data on how questioning students can be used (e.g., prior knowledge, assessment) or how questions may be structured and directed appropriately to suit students' differentiated learning needs.

Implementation

The mentees explained that they reflected on the implementation of their lessons in consultation with their mentors. Mentor 3 commented that her mentee learnt to implement the presiding syllabus requirements (e.g., Queensland Studies Authority, 2011) appropriate to the year level when planning lessons:

I've got him doing a plan where it covers the Ways of Working, what Essential Learnings am I expecting to cover, where's my orientating phase of the lesson, where's my enhancing phase, where's my synthesising phase ... His planning actually incorporates those things that as a teacher have to be a part of our everyday language.

Mentor 4 was attuned to her mentee's approach to teaching. Mentee 4 recounted her mentor as suggesting for her "to teach within my own comfort zones [...] don't try and go out and impress everyone of 'I'm doing this' or ... stay comfortable and then start extending". Mentee 3 indicated that his mentor encouraged him to gain teaching practice in areas where improvement was necessary. According to Mentee 3,

She [Mentor 3] wants to see student worksheets and me actually writing on the board because honestly I have been avoiding writing on the board because my handwriting is not the best at the best of times. So yeah she's trying to get me to do more practise on the board which I am doing as well.

All indicated that the mentors had assisted the mentees in the implementation of their lessons, which was also linked to the other pedagogical knowledge practices (e.g., planning, preparation, classroom management, assessment).

Assessment of learning

All mentees indicated dialogues with their mentors about formative assessment tools to assess their students' level of knowledge and understanding. Formative and summative assessment tools involved checklists, collecting students' work, monitoring students' work during class as well as gaining an indication of the students' understanding through verbal or non-verbal feedback. Mentees 2 and 4 witnessed a range of paper-based tests being used. Criteria sheets and marking rubrics were discussed by many of the mentor-mentee pairs, specifically unpacking criteria and moderating students' work. According to Mentee 3, his mentor showed him not only the summative assessment she was doing in the class but also how to mark the assessment according to a bell curve. Mentee 6 also indicated that her mentor went through "Things like all the tiny details at school like the parent-teacher interviews [reporting on student learning], like now I know about that sort of thing. And filling out continuum and mark books and recording everything". Assessment was viewed as a practice that needed to be embedded in the planning of the lesson with opportunities for gauging student learning through the lesson implementation.

Viewpoints for teaching

Most discussions that mentors and mentees shared around viewpoints for teaching were focused on behaviour management strategies. For example, Mentee 6 noted her mentor was:

...aware that there are a lot of things that I will need to know, like minor details, like school protocols, and the whole behaviour process where they get removed from the classroom, where do they go after that, all the steps, all the documents. At staff meetings she'll like fill me in on things that they're talking about that I might not have known.

Mentor 2 noted that "behaviour management is probably one of the key issues within education at the moment. You spend more time managing behaviour... Get behaviour under control first and then the rest will follow". Mentor 4 also commented, "come in with behaviour, come in firm and you can always get easier". Mentor 3 shared viewpoints about student involvement with her mentee: if we're doing a philosophy lesson, for example, and

they're sitting in a circle making sure that you're down on the floor with them and getting the kids to actually do the writing and those sorts of things. Mentor 5 was a relatively new teacher of three years and her main focus was on continued learning and improvement. She reinforced to her mentee that "I'm still learning, that I wanted to make student teachers aware of too. It's not [that] you stop learning once you go out, it's a continuous process." Viewpoints about lifelong learning processes linked to teaching philosophies were noted in discussions with the mentors and mentees but were not made sufficiently explicit.

Mentoring for Effective Teaching (MET) Program

All mentors agreed that the information provided and the collaborative discussions shared with other mentoring teachers throughout the MET program made it a worthwhile experience to have prior to their actual mentoring experience. For example, Mentor 6 stated that "we had lots of discussion with the teachers involved in our training program here [at school] which was really good and some of them have mentioned that they learnt quite a lot through the process so that's been very valuable". The program made it clear what was expected of mentors. Mentor 6 said,

I think it's been very good for developing a consistency of expectation within the school and we discussed that a lot at the facilitators' training too. It's also made... a very open discussion forum for teachers, who are mentor teachers, to discuss issues without feeling as though they're not doing something well enough. It's just an open discussion forum, which I think's been really good.

In some schools, the MET program prompted staff to create "school documents that all mentee teachers would get and mentor teachers also" (Mentor 5). The most common comment in relation to the importance of the program, however, was that it helped the mentors to "realise that there's so many things that after you've been teaching for a long time you sort of take for granted and you don't even think twice about" (Mentor 5) and that it was important for everything to be "explained at the very beginning so that expectations are very clear for the mentee" (Mentor 6).

The mentees agreed that their most recent field experience was different from previous experiences. Most mentees indicated that the mentors in this study took more time to view lesson plans, discuss pedagogical knowledge practices, and give constructive feedback after every lesson. For example, Mentee 5 acknowledged that in the past, she usually had to "wait and see in the interim report and end report" to know how she was

progressing. During this field experience, the mentors made it clear what they expected their mentees to observe and learn from them. They also made it explicit how the mentees might deliver a specific lesson by sharing their knowledge, experiences, and resources with their mentees. Through open discussions and questioning with their mentees, it appeared they were able to extend their mentees' pedagogical knowledge practices. It was from this field experience that the mentees claimed more knowledge about managing the classroom with a clearer idea of what to expect when they begin teaching their first year of teaching.

Discussion

The study demonstrated that mentors play a significant role in developing preservice teachers' pedagogical knowledge (see also Jonson, 2002; Margolis, 2007). The mentees in this program indicated they had gained higher levels of pedagogical knowledge with their mentors' guidance during this field experience. The mentees also acknowledged that through regular discussions with their mentors about specific pedagogical knowledge practices they had developed clearer concepts about teaching strategies and deeper insights into what and how they could best prepare for future teaching schools (e.g., development of pedagogical knowledge practices). It was evident from the mentees' responses that their confidence in their ability to teach effectively was growing as they received encouragement and advice from their mentors to seek alternative ways of teaching for determining successful practices. In this study, the mentor-mentee relationship was noted to enhance self-esteem and mutual satisfaction between the mentor and mentee (see also Bainer, 1997; Gormley, 2008; Margolis, 2007; Rippon & Martin, 2003).

Importantly, the findings suggested that there was a strong alignment between the mentors' explicit guidance on pedagogical knowledge practices and what the mentees had learnt about pedagogical knowledge practices. Mentees indicated that in previous field experiences they were not given the same level of guidance and support from their mentors. They commented that their previous mentors rarely provided explicit feedback about what they expected from their mentees and, instead, mentees waited to read their evaluation reports to discover what they were doing well and how they could improve. However, in this field experience, mentors had previously undertaken the MET program and it was suggested by the mentees that there were more formal meetings and informal dialogues compared with the mentees' previous mentoring experiences. The regularity of meetings allowed the mentors and mentees to monitor their mentees' progress efficiently. Perhaps due to the recency in

which the mentors completed the MET program (part of which engages with pedagogical practices outlined in Figure 1) mentors were able to identify and articulate explicit pedagogical practices with their mentees, such as planning a teaching program, assessing students' work and sharing classroom management strategies used to facilitate an effective learning environment. However, this study did not observe the mentors and mentees in discussion and instead used mentor and mentee interview responses to corroborate the mentoring practices. In addition, there is a need for more research around the depth of mentoring and learning around each of the pedagogical knowledge practices. Nevertheless, an explicit and purposive approach to mentoring enabled these mentees to reflect on the mentor teachers' modelling and articulation of pedagogical knowledge practices. According to Jonson (2002), mentors' clear explanations of teaching can assist mentees to reflect on their own practices and make appropriate adjustments.

Of the 11 pedagogical knowledge practices (Figure 1), mentors appeared to place the strongest emphasis on planning, preparation for teaching, and developing knowledge of classroom management strategies (including behaviour management) to ensure effective lesson delivery. Other researchers (e.g., Corcoran & Andrew, 1998; Hudson, 2004) have also found that a large proportion of mentoring is devoted to preparing for teaching and instructional assistance with classroom management. Mentors and mentees in this study indicated that the mentors spent a considerable amount of time discussing with their mentees the development of their lesson plans, the teaching resources available to assist them in delivering their lessons, the processes involved in implementing students' learning tasks, grouping of students, and assessing students' knowledge and understanding. They also discussed with their mentees the diverse needs of students and optimal strategies for keeping students on task. The focus on these particular pedagogical knowledge practices may be driven by their mentees' main concerns about teaching (see Gonzales & Sosa, 1993) and, overall, mentors seemed confident in guiding their mentees in these practices.

The pedagogical knowledge practice absent from all mentor and mentee interviews was the development of the mentee's questioning techniques. Levels of questioning (higher, lower), directing questions to ensure differentiation, and using questions as an assessment tool (e.g., prior knowledge and formative assessment) were not identified in the interview data and there was also no explicit question to prompt participants to discuss questioning techniques. It was also noted that over half the participants claimed mentors spent time with their mentees discussing their personal viewpoints on teaching but there was little or no mention of their personal teaching philosophies or their preferred theoretical frameworks for

teaching (e.g., Vygotsky's constructivism, Dewey's guided discovery). Instead, the mentors focused on the other pedagogical knowledge practices with a strong emphasis on planning, preparation, problem solving and sharing their classroom management strategies.

Conclusion

Mentors do not receive adequate training in effective mentoring; hence inequitable mentoring practices continue to occur in schools (e.g., Hudson, 2010a, 2010b; Long, 1997). Mentors and mentees in this study were able to identify the mentoring of 10 out of 11 pedagogical knowledge practices. In addition, the six mentees commented that their previous mentors had not provided this depth of mentoring for developing their pedagogical knowledge. An effective teacher may not necessarily be an effective mentor (Ganser, 1995; Newby & Heide, 1992), yet providing mentors with education about effective mentoring can help to build the capacity within schools.

Despite the limitations to this study, which involved a small sample of mentees and mentors, no observations of mentor-mentee dialogues in natural settings, and only one data collection technique, this study showed that mentors' engagement in explicit mentoring programs may lead towards more consistent and equitable mentoring practices. Indeed, the New South Wales (NSW) Institute of Teachers (2011) and Caldwell and Sutton (2010) promote strenuously the need to have teachers trained in effective mentoring practices with Caldwell and Sutton advocating mentors "... receive special certified training for their roles" (p. 131). There would be benefits for all as universities step up to provide explicit mentoring for effective teaching programs, which would increase the pool of available mentors and also advance the quality of mentoring for enhancing preservice teachers' practices and, ultimately, an education system.

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