Examining mentors’ personal attributes

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Abstract
Final-year preservice teachers’ perceptions of their mentors’ personal attributes were gathered through a literature-based survey instrument from two separate studies. The two studies \((n=331, n=60)\) provided an indication of the degree of “Personal Attributes” displayed by mentors while mentoring in a specific subject area (i.e., science). The key study results \((n=331, \text{from nine Australian universities involved in primary teacher education})\) indicated that on average 50% of mentors displayed “Personal Attributes” to facilitate effective mentoring practices \((n=331, \text{mean score range: 2.72 to 3.46; } SD \text{ range: 1.22 to 1.31})\). The results were a little higher for the smaller study \((n=60, \text{mean score range: 2.69 to 3.93, } SD \text{ range: 1.09 to 1.32})\). The study concludes that mentors’ personal attributes such as being supportive, attentive, and comfortable in talking to mentees, and personal attributes for instilling confidence and positive attitudes, and developing mentee’s reflective practices may more adequately assist the mentoring process for specific subject teaching.

Mentors’ personal attributes
Feiman-Nemser and Parker (1992) identify three key areas that pertain to the mentor’s role as a “local guide” (p. 16). First, the mentor helps the beginning teacher to understand the practices and culture of a school. Second, the mentor serves as an educational companion for developing the beginning teacher professionally. Third, an effective mentor acts as an agent of change by fostering an environment of collaboration and shared inquiry. Each of these key areas requires the mentor to have particular personal attributes, which hinge heavily upon effective communication and interpersonal skills. As learning takes place within the social context (Kerka, 1999) and, in a profession that has a focus on social interaction, interpersonal skills are basic requirements for effective teaching performance (Loucks-Horsely, Hewson, Love, & Stiles, 1998). This is also seen as essential for mentoring preservice teachers (Ackley & Gall, 1992; Galbraith & Cohen 1995; Ganser, 1994, 1996). Mentoring adults is different from teaching primary students with some researchers (e.g., Kennedy, 1992) claiming that mentors should be selected on their personal ability to interact with adults. Mentor’s personal attributes will be discussed in the following.

Supportive of the mentee for teaching.
Mentees emphasise the importance of their mentors’ provision of emotional and professional support for teaching (Scott & Compton, 1996; Riggs & Sandlin, 2002). Part of the mentor’s role is to nurture, support and challenge the mentee towards developing appropriate knowledge and skills (Anderson & Shannon, 1988). Egan (1986) observes that the “availability of the mentor is an important factor in the success of the relationship” and that “approachability and receptivity are important aspects of the mentoring relationships” (pp. 6-7). Being available and approachable demonstrates supportiveness for the mentee’s development and allows mentees to
more easily discuss issues or concerns with their mentors in order to facilitate further learning about teaching practices. Mentors’ support assists mentees to make the transition from “student to practicing professional” (Upson, Koballa, & Gerber, 2002, p. 4). The mentor’s personal attributes, which includes being supportive at all stages of learning how to teach (i.e., planning, implementation, assessment, and evaluation), can aid the mentee’s pedagogical development (Ackley & Gall, 1992; Peterson & Williams, 1998; Riordan, 1995).

**Attentive to mentee’s communication about teaching.**
In mentoring there is “a great deal of team-building, and intense communication and information sharing” (Fullan, 1999, p. 37). Open communication is necessary for preservice teachers to have successful field experiences (Ganser, 1994, 1996), and is a dominant mentoring skill (Long, 1995), which requires more time than is usually allotted (Schmidt, 1994). Ganser (1995) states that the mentor’s role extends “beyond those associated with good teaching” (p. 3) and, in many respects, the mentor becomes a “confidant” (p. 9). Being a confidant requires attentive listening (McCann, 1993). Indeed, teachers recognise listening skills or being attentive as an important quality for mentors (Hulshof & Verloop, 1994). An effective mentor employs good listening skills (Van Ast, 2002), which is considered a hallmark within quality mentoring programs (Daresh & Playko, 1995).

**Comfortable in talking to the mentee about teaching.**
Mentoring involves complex personal interactions “conducted under different circumstances in different schools” (Wildman, Magliaro, Niles, & Niles, 1992, p. 212), and so a mentor must be prepared to shape a mentee’s teaching practices through personal, two-way dialogue (Dynak, 1997). An important element of mentoring is simply talking about practice (Schreck, 1993). This requires the mentor to “discuss suggestions for practice in the context of their school” (Allsop & Benson, 1996, p. 20), as talking purposefully about teaching is an attribute of effective mentoring (Rosaen & Lindquist, 1992). Mentors who are comfortable in talking about teaching specific subjects, such as science or mathematics, display a confidence and enthusiasm for teaching the subject which can be infectious and aid the development of the mentee’s self-confidence (Crowther & Cannon, 1998). Monk and Dillon (1995) outline a simple three-step plan on mentoring secondary science teachers before, during and after the lesson, that is, the mentor needs to discuss the teaching plan, observe and record data, and then, discuss the data with the mentee. Although each of these simplified steps can have complex operational, cognitive and analytical implications for mentoring, the personal attribute for facilitating these steps is talking about practice (Schreck, 1993). The mentor can assist in this learning process by simply talking about problems that arise from practice to facilitate possible solutions, and a comfortable, two-way communication provides the basis for effective mentoring (Dynak, 1997).

**Instills positive attitudes for teaching.**
Preservice teachers’ attitudes regarding specific-subject teaching, such as science or mathematics, needs continual development (Cox & Carpenter, 1989). Field experience programs aim to improve teacher performance, and increase positive teaching attitudes (Feiman-Nemser & Parker, 1992). These programs allow the mentee to emulate many of the mentor’s positive attributes (Matters, 1994). As it is important for field experiences to instill levels of commitment and motivation in mentees (Corcoran & Andrew, 1988), these experiences may be a means for developing positive attitudes towards teaching specific subjects (e.g., primary science, see James & Hord, 1988). Mentors’ personal approach for providing positive feedback may also be linked to developing mentees’ positive attitudes (Riordan, 1995).
Instills confidence for teaching.

Bandura (1986) observed that with the “different aspects of self-knowledge, perhaps none is more influential in people’s everyday lives than conceptions of their personal efficacy” (p. 390). One of the strongest factors influencing the implementation of effective teaching practices is self-efficacy, which can be observed in teaching approaches and appears to be linked to teacher confidence (Beck, Czerniak, & Lumpe, 2000). Ashton (1984) also confirms, “no other teacher characteristic has demonstrated such a consistent relationship to student achievement” (p. 28). Specifically, the importance of developing self-confidence “among preservice elementary teachers for teaching” has been emphasised in specific subject areas (Enochs, Scharmann, & Riggs, 1995, p. 73). Mentors can deflate or inflate the mentee’s confidence for teaching depending on the mentor’s personal approach. Deflationary mentoring includes ignoring the mentee or providing only negative feedback. However, mentees can enhance their self-esteem and confidence through diplomatically constructive mentoring programs (Lankard, 1996; McCann, 1993) and the ability to instill confidence appears to be aligned with the mentor’s personal attributes.

Assists the mentee to reflect on improving teaching practices.

It appears that part of the process of changing beliefs “requires considerable reflection on practice” (Abell & Bryan, 1999, p. 123). Critical self-reflection is considered “the main catalyst for the development of autonomy and expertise” (Veenman, de Laat, & Staring, 1998, p. 6). Schon (1987) labels field experiences as the “reflective practicum”, as the intention implies that reflection aims towards improving practice. Although reflection impacts on thinking, mentees need to be taught the skills of reflection and be provided with a “multitude of opportunities to practise those skills” (Greene & Campbell, 1993, p. 37), which is guided through the mentor’s personal attributes. Indeed, if mentors are not supportive then mentees may not be receptive to mentor’s facilitation of reflection on practice.

Five factors have been previously identified for mentoring, namely: personal attributes, system requirements, pedagogical knowledge, modelling, and feedback (Hudson, Skamp, & Brooks, 2005). Problems can occur in mentoring relationships if there is a “lack of mentoring skills on the part of the mentor” (Soutter, Kerr-Roubicek & Smith, 2000, p. 6), which includes the effectiveness of mentor’s personal attributes. There is little Australian research that analyses primary teachers’ personal attributes for mentoring; hence this study aims to examine preservice teachers’ perceptions of their mentors’ personal attributes. Specifically, this study focuses on mentors’ personal attributes in relation to their mentoring of a specific subject area (i.e., primary science).

Data collection methods and analysis

This research comprises of two studies. The first study involved administering a literature-based survey to 383 final-year preservice teachers from nine Australian universities (58% response rate; n=331, no missing data, 284 females, 47 males). Confirmatory Factor Analysis (CFA) provided analysis of the data identifying five factors and associate variables (see Hudson, et al., 2005 for full details of the methodology and instrument). The second study involved administering the same survey to 72 final-year preservice teachers (100% response rate; n=60, no missing data) at the conclusion of their four-week field experiences at a regional university one year later.
The survey instrument (which was amended after an initial pilot study of 59 final-year preservice teachers, see Hudson & Skamp, 2002) aimed to explore mentees’ perceptions of their mentors’ practices in primary science. Survey items had Likert scales for each response category, namely, “strongly disagree”, “disagree”, “uncertain”, “agree”, and “strongly agree”. Scoring was accomplished by assigning a score of one to items receiving a “strongly disagree” response, a score of two for “disagree” and so on through the five response categories. Survey items were checked for missing or improbable values and were deleted (Hittleman & Simon, 2002). Descriptive statistics were derived using SPSS13. Data analysis included: frequencies of each survey item under specified categories, means, and standard deviations, which give the average distance between the mean and all the other scores (Hittleman & Simon, 2002). Although the two studies (n=331, n=60) provided an indication of the degree of “Personal Attributes” displayed by mentors while mentoring in primary science teaching during final-year field experience programs, reporting the findings mainly focused on the first study (n=331).

Results

Descriptors of mentors (n=331)
Most mentors were over 40 years old, although 17% were under 30 years of age. Mentees indicated that 27% of mentors did not have an “interest” or a “strong interest” in science. Forty percent of mentors did not model a science lesson during their mentees’ practicum experiences, which may equate to the 40% of mentees who considered science not “a strength” of the mentors. Eleven percent of mentors did not talk about science during the total practicum, and 45% of mentors spoke to their mentees about primary science teaching a maximum of three times during their last practicum.

Descriptors of mentees (n=331)
Fifty-six percent of these mentees (n=331) entered teacher education straight from high school, with 52% completing biology units at school. All mentees had completed at least one science methodology unit at university, and all mentees had completed at least three block practicums with 28% completing five practicums. There were no practicums under a three-week duration, and 66% of practicums were of a five-week duration or more. Only 49% of these mentees were required to teach science during practicum as part of their university requirements; however the number of science lessons taught by mentees during their practicum varied considerably (11% taught one lesson; 6% two lessons; 22% three or four lessons; 38% six lessons or more; and 15% did not teach science at all).

Personal attributes (n=331)
When analysing the mentees’ responses on their mentors’ “Personal Attributes”, a majority of mentors (64%) were perceived to be supportive towards their mentees’ primary science teaching, and 56% of mentors appeared comfortable in talking about science teaching. The mentees claim that a little more than half the mentors (53%) attentively listened to their mentees and less than half instilled confidence (46%) and positive attitudes (45%) for teaching primary science. Aiding the mentee’s reflection on teaching practices is considered a key element in the mentoring processes but 65% of mentors did not display this characteristic (Mean item score range: 2.72 to 3.46; SD range: 1.22 to 1.31; mean scale score=3.14; see Table 1). A reliability analysis was conducted and produced a Cronbach alpha of 0.93 (p<0.001).
Table 1

<table>
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<th>Mentoring Practices</th>
<th>n=331</th>
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<th>n=60</th>
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<td>M</td>
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<td>%</td>
<td>M</td>
<td>SD</td>
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<td>1.22</td>
<td>68</td>
<td>3.62</td>
<td>1.21</td>
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<td>1.31</td>
<td>57</td>
<td>3.31</td>
<td>1.30</td>
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<tr>
<td>Instilled confidence</td>
<td>46</td>
<td>3.10</td>
<td>1.28</td>
<td>49</td>
<td>3.20</td>
<td>1.31</td>
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<td>Instilled positive attitudes</td>
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<td>1.23</td>
<td>53</td>
<td>3.25</td>
<td>1.32</td>
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<td>2.72</td>
<td>1.25</td>
<td>48</td>
<td>2.69</td>
<td>1.09</td>
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%: percentage of mentees who either “agreed” or “strongly agreed” that the mentor displayed “Personal Attributes” for mentoring.

Descriptors of mentors (n=60)
Mentors (38% males and 62% females) in this group varied in their background and behaviours. Sixty-five percent of mentors were over 40 years old, with only 6% under 30 years of age. Forty-seven percent of mentees indicated that they were undecided as to whether their mentors were interested in science. Twenty percent of mentors did not model a science lesson during their mentees’ practicum experiences, which equates approximately to the 23% of mentees who considered that science was not a strength of the mentors.

Descriptors of mentees (n=60)
Descriptors of the final-year preservice teachers in the control group (n=60, no missing data) included: twenty-eight percent had entered teacher education straight from high school, with 42% completing high school biology and 17% completing high school physics; eighty-seven percent had completed only one science methodology unit at university, and 80% had completed four field school experiences spanning a total of 100 days over a four-year period; and, a varied number of science lessons taught by mentees during their practicum (8% taught one lessons; 13% taught two lessons; 33% three lessons; 42% taught four lessons or more; and only 3% did not teach science at all).

Personal attributes (n=60)
The cohort of final-year preservice teachers (n=60), provided perceptions of the mentor’s “Personal Attributes” associated with their mentoring in primary science teaching (mean score range: 2.69 to 3.93, SD range: 1.09 to 1.32, see Table 1; mean scale score=3.35). Even though 80% of mentees indicated that their mentors were supportive, 10% strongly disagreed with this action. Thirty percent of mentees claimed that the mentor did not make them feel positive or confident about teaching primary science, with 27% claiming that the mentor did not listen attentively to the mentee about their science teaching. Other than instilling confidence to teaching science (49%) and assisting in reflecting on practices (48%), the majority of mentors in this cohort practised the “Personal Attributes” indicated in Table 1. A reliability analysis was conducted and produced a Cronbach alpha of 0.92 (p<0.001).

Discussion
An effective mentoring program requires a mentor to exhibit personal attributes in order to develop the mentee’s teaching. Such attributes require the mentor to be supportive, attentive and comfortable in talking while instilling positive attitudes and confidence for improving the
mentee’s teaching practices. Importantly, the mentor’s personal attributes may assist the mentee to reflect more constructively on practices. These mentoring practices were identified as statistically representative of the “Personal Attributes” required of mentors (see also Hudson et al., 2005) and will be discussed in relation to mentoring of a specific subject area (e.g., primary science).

Both studies have strong similarities with regard to mentees’ perceptions of their mentor’s personal attributes. Although the majority of mentors were perceived to be supportive of their mentee for teaching science, there were a significant number of mentors who had not supported their mentee in primary science teaching (i.e., 20-36%, see Table 1). Reasons for mentors not being supportive for developing their mentee’s primary science teaching need to be clearer. It may be that the majority of mentors in this cohort were not confident or lacked sufficient knowledge of primary teaching and/or effective mentoring. Indeed, there may be a relationship between mentor’s own pedagogical knowledge and skills and the support they are able to provide to their mentees. For example, Goodrum et al (2001) claim that primary teachers generally teach science inadequately, if at all. Hence, the quality support provided for primary science education may be limited by the mentor’s own teaching practices. Yet mentor support is considered a need of mentees; therefore a lack of support may hinder the mentee’s development. Mentors’ attentiveness to mentees will also need further development, as only 53% of mentors were perceived to be attentive to the mentee’s communication (Table 1). Whether this is perception or reality, if mentees’ perceive no involvement from their mentors then either mentors are not effective in displaying attentiveness or it is not happening. If communication is a two-way interaction then mentors who do not listen attentively to mentees may miss conceptualising the needs of the mentee, which may reduce the effectiveness of the mentoring. More importantly, listening attentively is considered part of relationship building and an essential aspect of a collaborative partnership, and needs to be employed by both mentors and mentees.

The findings indicated that a little more than half the mentors appeared comfortable talking about science teaching (Table 1). Mentors who are uneasy with talking about teaching may not develop the mentee’s self-confidence in this area. Mentees rely on mentors as confident, experienced teachers, and the lack of confidence expressed by mentors during discussions may have negative transference for developing the mentee’s primary teaching practices. Educators and researchers still need to explore and understand the effects of marginalising particular personal attributes in the mentoring process. For example: What specific issues make some mentors uncomfortable with talking about primary teaching in specific subject areas? What effect might mentors’ feelings of discomfort have on mentees’ teaching practices? How can mentors become more comfortable with talking about specific subject teaching in the primary school?

Even though mentees’ need to have positive attitudes for teaching, the data revealed that most mentors do not instill positive attitudes in their mentees for teaching a specific subject (Table 1). By not having positive attitudes, the mentee’s commitment and motivation for teaching a specific subject (e.g., primary science) may diminish, and field experience programs may fail to meet a key objective of developing positive attitudes in specific subject areas. This implies that there may be many final-year preservice teachers about to enter the profession without positive attitudes for teaching specific primary subjects. Hence, education reform in specific subject areas (such as primary science) will miss its mark at this most formative stage. Although there
is a relationship between instilling positive attitudes and instilling confidence, they are not the same. Findings from this research indicated that less than half the mentors instilled confidence in their mentees to teach primary science (Table 1). If confidence is related to self-efficacy (Bandura, 1986) then mentees who had not received mentoring that instilled confidence to teach science may lack the self-efficacy required for facilitating effective science education. This may mean that outcome expectancy (Enochs & Riggs, 1990) will be low and therefore teaching practices may reflect this expectancy.

The results also indicated that assisting mentees to reflect on science teaching practices had the lowest rating in mentors’ “Personal Attributes” (Table 1). As reflection aids improving practices, the data shows that the majority of final-year preservice teachers may not be adequately educated on how to reflect within the school setting. For final-year preservice teachers, this implies that there may be a considerable percentage of teachers entering the profession who may not have experienced practical applications used to improve teaching practices toward becoming autonomous. Eliciting reflection on practice from mentees may require particular personal attributes from mentors. Indeed, mentors who do not have positive personal attributes may marginalise mentees’ reflective responses to their developing teaching practices. Mentors’ interpersonal skills can aid the development of mentee’s reflectivity; however mentors may need to learn how to mentor reflective practices in specific subject areas (e.g., primary science or primary mathematics) in order for mentees to reflect on such subjects.

There appears to be personal attributes a mentor can model and employ for developing a mentee’s teaching practices. These personal attributes call on the mentor to develop confidence in the mentee to teach science (Lankard, 1996), and to foster a positive attitude for teaching science (Riordan, 1995). A “reflective practicum” (Schon, 1987) requires mentors to use their personal attributes to facilitate opportunities for reflection, and assist in the reflective processes for developing teaching practices. In addition, mentors need to be comfortable in talking about teaching (Allsop & Benson, 1996).

Mentors’ personal attributes may be developed as a result of effective mentoring. For example, Little (1990) says that mentors learn how to be more persuasive and meaningful, and yet diplomatic in delivering critical feedback (and talking comfortably) to the mentees. Fresko (1991) also claims that mentors develop personal attributes as mentoring instills more tolerance and empathy for individuals and groups in society, greater social awareness, and a stronger sense of social responsibility. Hence, the mentor’s personal attributes becomes an integral part of effective mentoring practices. It is important to note that after involvement in preservice teachers’ field experiences, mentors are usually willing to continue mentoring (Scott & Compton, 1996), which means that mentors value mentoring, and obviously gain personal benefits.

**Conclusion**

The mentor’s personal attributes (including interpersonal skills) can influence the mentee’s development as a teacher and has a bearing on the effectiveness of the mentoring offered (Ackley & Gall, 1992; Galbraith & Cohen 1995; Ganser, 1996; Peterson & Williams, 1998). Such mentor qualities as being comfortable in talking about teaching may put the mentee at ease for asking questions and exploring specific topics. The comfort level may also be associated with building a rapport with the mentee, where interpersonal ease facilitates flowing discussions, so that the mentee can feel freer to discuss new ideas for teaching. Being affable
and fostering the mentee’s confidence for teaching may pave the way for further feedback on practices. Most importantly, the mentor’s personal approach for providing opportunities to reflect on teaching (Abell & Bryan, 1999), and assisting reflection on practice by being comfortable in talking about teaching (Rosaen & Lindquist, 1992) is pivotal to the mentoring process. However, further research would be required to determine if a mentor’s personal attributes change when mentoring particular subject areas. For example, personal attributes may be different when mentoring in primary science compared to mentoring in primary art, which may indicate the mentor’s confidence to teach or mentor in particular subjects.

Even though it is recognised that personal attributes may contain a seemingly limitless number of variables, this study argues that literature-based, holistic personal attributes may include: the ability to instil positive attitudes and confidence for teaching and to assist mentees to reflect on their teaching practices require mentors to be comfortable with talking or interpersonal ease, attentive, and supportive. Therefore, a significant part of the mentor’s role is to exhibit these personal attributes in order to facilitate the mentee’s development of primary teaching practices. Mentors may be able to develop personal attributes if awareness levels are brought to the fore. If being attentive and supportive benefit mentees’ teaching practices and is part of a mentoring framework, then mentors may aim to develop, refine, and enhance these skills. This type of professional development may enhance the mentor’s personal attributes that lead towards effective mentoring. It is also argued that purposeful mentoring strategies may create a shift in the way in which both mentors and mentees work together to teach a specific subject and achieve maximum benefit within relatively short field experience periods.

References


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