

Educational Mentoring: Is it worth the effort?

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In this review of 159 articles relating to educational mentoring, an endeavour has been made to clarify the benefits and negative outcomes of mentoring programs for mentors, mentees and the educational organization. Although there was found to be a higher incidence of positive outcomes associated with mentoring programs, sufficient evidence suggested that the 'dark side' of mentoring does exist. While numerous positive and negative impacts of mentoring on mentors and mentees were noted, impacts on the organisation (frequently schools) were rarely addressed. It should be noted that the reported outcomes are based on studies as the unit of analysis rather than the number of subjects in a study. In many cases where mentoring programs were reported to have negative outcomes, program success appeared to have been jeopardised by lack of funding, lack of time, or poor matching of mentors and mentees.

Researchers interested in the field of mentoring are aware that many studies investigating the effects of mentoring have reported positive outcomes. For decades now, mentoring has been linked to a range of consequences ranging from career advancement and heightened self-confidence, to an increased sense of belonging. Indeed, literature exists which suggests that mentoring is a panacea for a variety of personal and societal ills. Torrance (1984) for instance, suggested that individuals who remained mentorless were more vulnerable than mentored individuals to a range of problems such as educational failure, lack of career goals or focus, lack of enthusiasm, frustrated creativity, unfulfilling jobs, emotional problems, alcoholism and drug abuse.

Many would have us believe that within educational contexts, the impact of mentoring has been no less pervasive. A precursory investigation of research into mentoring in educational contexts had revealed that there were benefits to be gained from mentoring, not only

by the mentee or protégé, but also by the mentor. For instance, Monsour's (1998) examination of a mentoring program for beginning school principals in Minnesota found that benefits for mentors included friendship and information exchange. On the other hand, benefits for mentees included emotional support, networking, and sharing of resources and materials.

According to Kindt (1994), mentoring facilitated a collegial climate between the mentors and mentees in his Australian study of student teacher development. Kindt noted that novice teachers claimed that they were made to feel like professional teachers and valued the confidence that mentors displayed in their abilities. Holmes (1991) also identified the importance of confidence in his study in the United States of journals kept by a mentor and student teacher, while in Wilkins' (1997) United States study, students' scores improved when they were taught by teachers who had undergone mentoring.

Mentors in MacFarlane and Joughin's (1994) Australian study of peer mentor groups in a higher education setting, reported that they had 'benefited greatly from the experience' and were 'convinced about the benefits which the student peer mentor groups offer to students' (p.168). Tauer (1998) too, noted positive outcomes for mentors and mentees from their involvement in a teacher mentor program in the United States. During interviews with dyads of mentors and mentees a range of benefits were articulated such as 'professional growth', 'personal growth', and 'a greater understanding of self'. For mentees in Brown and Wambach's (1987) United States study of teacher induction, mentoring facilitated positive attitudes about teaching and improved the likelihood that they would continue in the profession.

Perhaps lesser known is a body of literature that has reported negative outcomes associated with mentoring programs. These negative outcomes underlie what Duck (1994) and Long (1997) have referred to as the 'darker side' of mentoring. In relation to educational contexts, many studies have painted a less than auspicious picture of mentoring programs. Feiman-Nemser, Parker, and Zeichner (1992) for example, were critical of what they observed while investigating the quality and character of mentoring in a large urban school district in the United States. The authors questioned whether the programs facilitated the understanding of teaching and pedagogical thinking among beginning teachers and claimed that the rhetoric of mentoring did not match the reality. Furthermore, they suggested that the training of mentor teachers had been such that there was a risk of deskilling the mentors. They reported that the mentors 'never probed anything ... structured the conferences and dominated talk. They asked all the questions, made all the statements, offered all the suggestions' (p.15).

Tensions between mentors and mentees were observed by Graham (1997) in her study of mentor teachers and student teachers in six Georgia schools. Graham revealed that the most divisive tensions stemmed from philosophical differences and 'different tolerance levels for uncertainty' (p.514). These tensions were exacerbated by the context of the relationship, in this case, a school district 'tangled in highly charged political conflicts' (p.525).

In their study of mentor teachers in the Teachers for Chicago Program, Knauth and Kamin (1994) found that there was little opportunity for role modelling. The authors noted that in carrying out their mentoring role, mentors were frequently out of their classrooms. This reduced the likelihood of mentors acting as instructional leaders for the novices. Mentors in this study also commented that they 'spent far more time than they expected helping the interns with paperwork and other logistics' (p.100).

Negative outcomes can also be experienced by mentees. In their Australian study, Ballantyne, Hansford and Packer (1995) noted that preservice education students could be disadvantaged when mentors were 'out of touch with or antagonistic towards the progressive techniques that (students) had learned during their preservice education' (p.303). Similarly, a number of new teachers in Freiberg, Zbikowski and Ganser's (1994) United States investigation, found their mentors to be unhelpful, unsupportive, and at times, intrusive.

It was apparent from our preliminary investigation that the variability of findings from studies into mentoring hindered the making of valid inferences about mentoring programs. Ragins, Cotton and Miller (2000) sum up these variable results in the following manner, 'mentoring relationships fall along a continuum, and although many mentoring relationships are highly satisfying, some may be marginally dissatisfying, or even at the very extreme end of the continuum, dysfunctional, or harmful' (p.1178).

The aim of the current study was, therefore, an attempt to develop a comprehensive database from which educationalists could make more reliable inferences regarding the nature and outcomes of mentoring programs. For the purposes of our review, mentoring was considered to be a personal, helping relationship between a mentor and a mentee/protégé that includes professional development and growth and varying degrees of support. While mentoring relationships are reciprocal, mentors tend to be those with greater experience.

Initially it was our intention to base the review of educational mentoring on meta-analytic procedures as suggested by Glass (1977) and refined by others. However, it quickly became obvious that a small

proportion of educational mentoring studies provide statistical results, the medium most suited to a meta-analysis. Rather than conduct a meta-analysis on a limited sample we opted for an analysis of reported descriptive outcomes based on content and thematic analysis.

The current review of educational mentoring was guided by the following questions:

- What does the literature report in relation to the beneficial and/or negative outcomes that result from the implementation of mentoring programs in an educational context?
- What is the impact of such mentoring programs on the mentor and mentee?
- What is the impact of such mentoring programs on the organisation?

While the reporting of outcomes associated with mentoring programs is significant in its own right, the current investigation went beyond this to examine particular methodological characteristics of the studies. For instance, also examined were the types of mentoring programs that occurred in educational contexts, as well as sample sizes, data collection techniques, publication sources and the countries in which the studies were conducted. It was felt that these and other variables considered in the investigation would enable a more comprehensive understanding of educational mentoring.

Procedure

The initial source of mentoring studies in education came from a collection of articles held by a member of the research team. However, in order to identify a more complete population of studies the databases ERIC, AUSTROM (AEI), PsycLIT and ProQuest were searched using the terms 'Mentor', 'Mentoring', 'Mentor + Teacher/s', 'Mentoring + Teacher/s', 'Mentor + Education/al', 'Mentoring + Education/al'. Because it was considered unmanageable to code the entire population of studies that could be retrieved, it was decided to proceed with the coding of approximately 150 studies. This, we believed, would provide a reasonably representative sample of the total population of studies available. As Lather (1999) explained, a review 'is not exhaustive; it is situated, partial and perspectival', it is 'a critically useful interpretation and unpacking of a problematic that situates the work historically and methodologically' (p.3). This construct of a review underpinned our extensive inquiry into the literature devoted to the outcomes associated with educational mentoring.

For inclusion in the current investigation, studies had to meet two criteria. Firstly, they had to report outcomes as a consequence

of the specific mentoring program being examined. Secondly, they had to focus on the use of mentoring in an educational context. For the purposes of the study, education referred to any school (early childhood, primary and secondary) or tertiary setting. As was anticipated, the literature search yielded many studies of a theoretical or descriptive nature that, while interesting, contained no research findings relating to mentoring outcomes. In fact, less than one third of the studies retrieved met the requirements of the study.

Measure

Starting with the most current databases and searching back to 1986, we were able to retrieve 159 studies that met the requirements of the investigation. Each was reviewed according to a series of codes developed specifically for the analyses. The development of the coding sheet that was used stemmed from a preliminary reading of 14 articles in the area of educational mentoring. These articles provided the authors with an indication of the nature of information that could be accessed and coded.

Accordingly, two types of data were identified and coded—factual and descriptive data. Factual data comprised year of publication, source (for example journal article, research report), country of study, type of mentoring studied (such as beginning teaching), sample size, the data collection techniques employed by the researchers, and who the data was collected from.

The descriptive data related to the reported outcomes of educational mentoring studies. Although we were aware that mentoring outcomes range along a continuum we felt it was both defensible and more feasible to make a distinction between descriptive outcomes that had clear positive or negative connotations. We took this approach following the work of Eby, McManus, Simon and Russell (2000) who suggest that researchers 'should examine both aspects to adequately capture the totality of a relational experience' (p.2). These same authors point out they are not suggesting 'the presence of negative events means the relationship is doomed' (p.2). Consequently, it is important to keep in mind that overall a healthy mentoring relationship can exist even though the mentors, mentees, or both report some negative perceptions. Further we took into account research that reports mentoring findings are dominated by mentee data (Feldman, 1999). Consequently a differentiation was made during the coding as to whether the outcomes related to mentees, mentors or the organization employing the mentees.

Data Analysis

The descriptive outcomes data underwent content analysis to identify underlying themes or categories. This analysis was based on the techniques outlined by Weber (1990). As indicated elsewhere, all coders initially examined 14 mentoring articles and developed a coding sheet relating to the perceived positive and negative outcomes. Two coders then read the descriptive outcomes and reached an initial 86 per cent agreement rate. A third coder then joined the first two and discussions took place concerning the outcomes where disagreement existed. Discussions continued until consensus was reached. This produced a substantial list of positive and negative outcomes and these were refined by clustering and identifying higher level themes and meta themes (Allen, Poteet and Burroughs, 1997). On completion of the coding the factual data were analysed using SPSS for Windows and descriptive statistics provided indications of trends or patterns.

Results

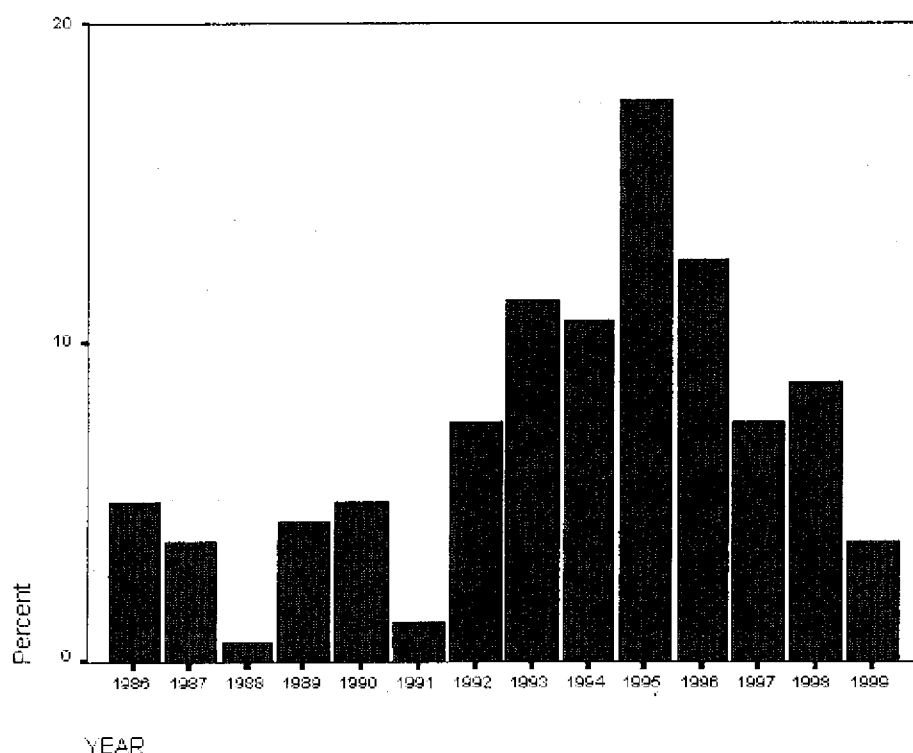
Sample Demographics

Figure 1 presents the percentage distribution of reviewed studies that were conducted between 1986–1999. Based on the large sample used in this investigation sample ($N=159$), it seems probable that research into educational mentoring peaked between 1993 and 1996. As Figure 1 shows, more than half (52.2 per cent) of all the reviewed studies were conducted during this four-year period. According to our database, the largest number of studies to be conducted in a single year occurred in 1995. While there appears to have been a decrease in research publications since then, compared with pre 1992 figures, interest in this area remains relatively constant. The lapse of time since June 1999 is explained by the intensive coding task involved and an extensive, but eventually abortive, exploration into the feasibility of translating the frequency outcomes of descriptive data into a more meta-analytic type of study.

Of the studies reviewed, over half (55.3 per cent) were derived from journals. This high representation of journal articles is in part indicative of the ease of locating journals compared with other study sources, than a lack of alternative sources of studies *per se*. However, it is also true that the major publication outlet is via the many journals accepting educational mentoring articles. Despite initial assumptions that a select group of journals would account for a majority of published studies, this was found not to be the case. Studies were spread across 46 journals and only six of these journals featured three or more studies. These journals were *Action in Teacher Education*, *Journal of Educational Administration*,

Journal of Teacher Education, *Teacher Education Quarterly*, *Teaching and Teacher Education*, and *Mentoring and Tutoring*. Not surprisingly, the journal responsible for the highest number of articles (24) was *Mentoring and Tutoring*.

Figure 1
Distribution of studies into educational mentoring 1986–June 1999



More than one quarter (28.9 per cent) of the studies reviewed were derived from conference presentations or meeting papers. A further 8.2 per cent were derived from research reports or monographs while only three (1.9 per cent) were derived from book chapters. Although the initial literature search revealed a substantial number of research dissertations in the area of educational mentoring, the costs and complexities associated with obtaining these precluded most from the study. Nevertheless, data were obtained from nine dissertation abstracts accounting for 5.7 per cent of the sample.

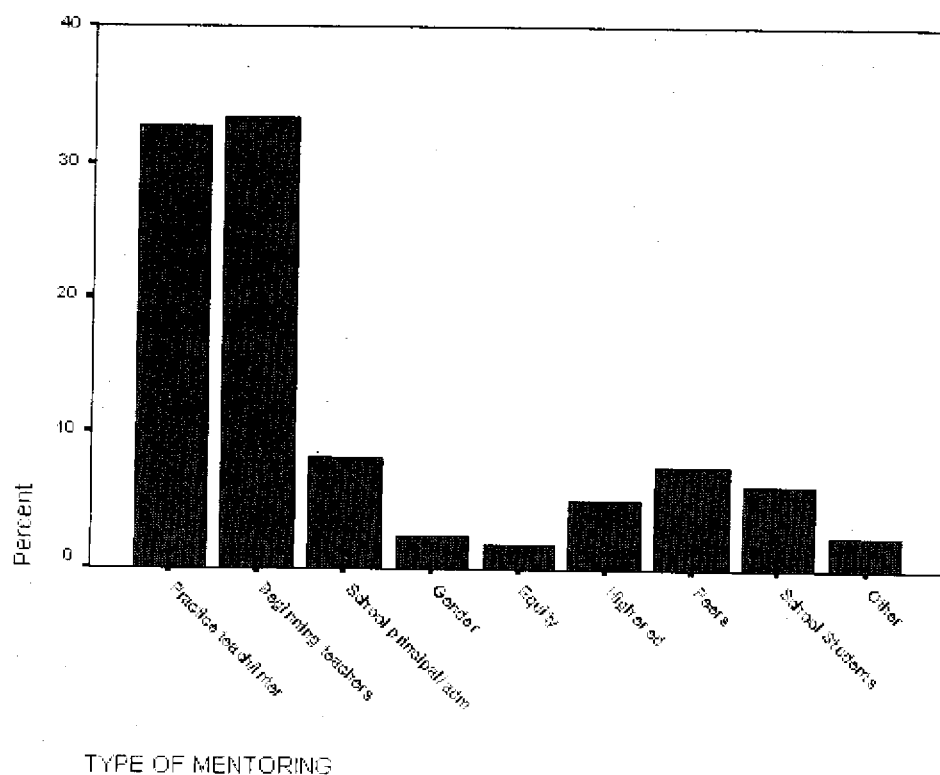
Analyses revealed that the majority of reviewed studies had been conducted in the United States. Sixty one percent of the studies were carried out there, while those conducted in the United Kingdom and Australia accounted for 18.9 per cent and 15.7 per cent respectively. A further four (2.5 per cent) studies were conducted in Canada and one each (1.6 per cent) in Belgium, South East Asia, and South Africa. Although

this suggests that little or no research into educational mentoring had been published in other parts of the world, this is unlikely to be so. What is more likely, is that the databases used in the literature search draw predominantly on English speaking countries.

Focus of Studies

The studies reviewed in this investigation focused on a variety of types of mentoring that occurred in educational settings. As can be seen in Figure 2, by far the most widely investigated mentoring types were mentoring for practice or beginning teachers. Together, these accounted for nearly two thirds of all studies reviewed. Other types of mentoring examined in the research were mentoring for school principals and administrators (8.2 per cent of the sample), mentoring for staff in higher education (5 per cent of the sample), mentoring for school students (6.3 per cent of the sample); mentoring among peers, for example, teachers mentoring teachers (7.5 per cent of the sample), and mentoring with a gender or equity focus (2.5 per cent and 1.9 per cent respectively). In addition, four (2.5 per cent) studies did not fit within these categories.

Figure 2
Focus of investigation for studies into educational mentoring



Methodological Stance of Studies

Studies were coded according to whether they were qualitative, quantitative or mixed-method in their approach. This was largely determined by the types of techniques utilised by researchers in the collection of data but it also included how that data were analysed. Studies classified as qualitative were those that derived data, not from measurements, but from techniques such as interviews, observations, and journals. Quantitative studies, in contrast, used measures that were structured and produced numerical data resulting from measurements or counting. Mixed method studies were those that used a combination of qualitative and quantitative data collection techniques or a single technique that conformed to both methodologies (for example survey questionnaires that included both closed response questions resulting in numerical data, as well as open questions).

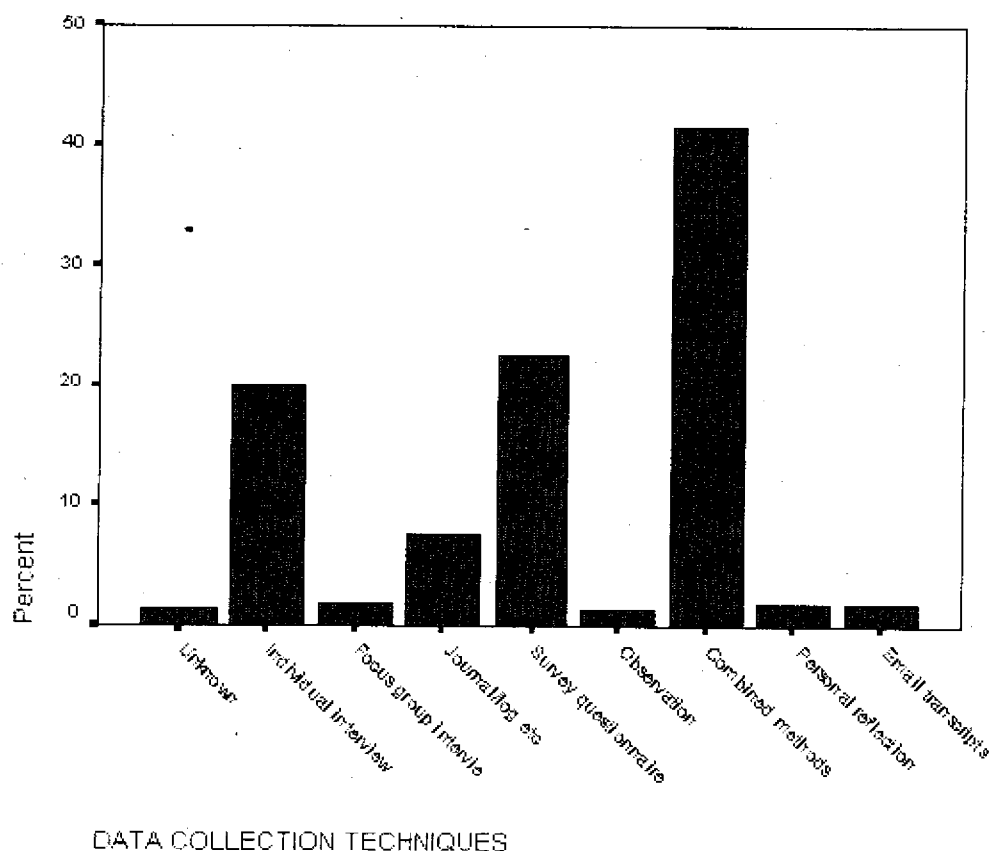
Several studies presented a rationale or acknowledged a source for their chosen methodological approach. Hardcastle's (1988) qualitative study, for instance, employed unstructured interviews to gather information. She related the study's lack of hypotheses and specific intentions to principles associated with Glaser and Strauss's (1967) grounded theory. Ackley and Gall (1992) accredited their case study approach to the work of Yin (1989). In relation to specific data collection techniques, Hardy (1999) reasoned that the questions in his questionnaire were open-ended so that he could 'see the school-based experiences through their eyes ...' (p.180). Bower and Yarger (1989), on the other hand, maintained that they employed interviews and observations to gather data 'because they are considered to be the most suitable for examination and documentation of dynamic relationships' (p.5).

Almost two thirds (64.2 per cent) of the studies were classified as qualitative in their approach, over one quarter (26.4 per cent) were mixed method, while only 15 or 9.4 per cent were quantitative. Qualitative studies tended to employ interviews, questionnaires comprising open questions, or journals to gather information. Mixed method studies relied on a combination of qualitative and quantitative techniques, for example questionnaires comprising open and closed questions. Several mixed method studies also used questionnaires that comprised closed-response questions to survey a large population, followed by interviews with a subset of the original population. Quantitative studies all employed survey questionnaires featuring mostly select response or closed items as a sole means of gathering information.

Figure 3 illustrates the breakdown of data collection techniques employed in the reviewed studies. As can be seen, sixty-six (41.5 per cent) of the studies utilised a combination of techniques. Thirty-six (22.6 per

cent) gathered information through surveys (featuring open or closed questions or a combination of open and closed questions, 35 (22.0 per cent) relied on interviews (individual or focus group), 17 (11.3 per cent) used journals, logs, transcripts or reflections, while two (1.3 per cent) studies employed observations.

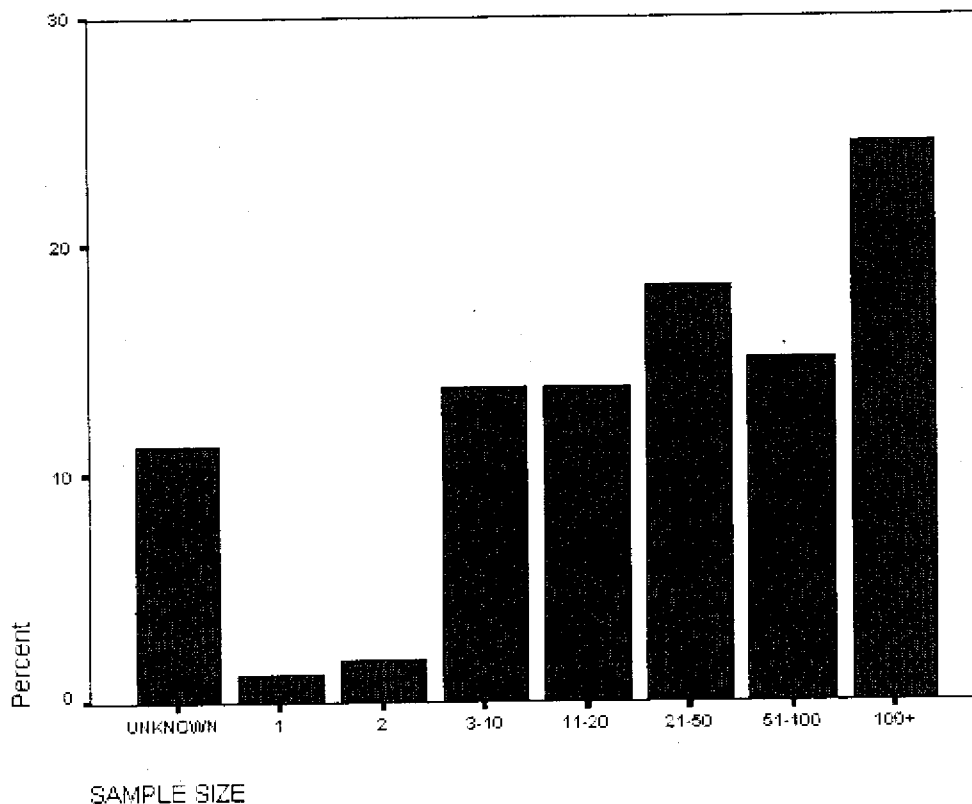
Figure 3
Types and Frequency of Data Collection Techniques



As noted, the majority of studies examined adopted a qualitative approach to their investigation. Considering this high rate of qualitative studies, the sample sizes reported in the studies were somewhat surprising. Samples in excess of 100 respondents comprised almost one quarter (24.5 per cent) of all studies reviewed. Four of these studies (Wilkins, 1997; Bolam, McMahon, Pocklington & Weindling, 1995; Wale & Irons, 1990; Pavan, 1986) featured samples of more than 500. It should be noted, however, that two of these studies were of a purely quantitative nature while the remaining two adopted a mixed method approach to their investigation. As Figure 4 illustrates, an additional 15.1 per cent of studies featured samples ranging from 51 to 100, while

only 13.8 per cent of studies comprised samples of 10 or less. A further 11.3 per cent of studies did not indicate their sample size.

Figure 4
Sample sizes and frequencies for studies into educational mentoring



Studies were also coded according to their data source. In 35.8 per cent of studies, information was collected from both mentors and mentees. A further 22 per cent of studies collected information from mentors, mentors and 'other participants'. In such cases, other participants included those involved in the delivery of the mentoring program (such as school principals, program developers, administrative or university staff). In 19.5 per cent of studies, the mentor was the only source of data, while slightly fewer studies (18.9 per cent) sought information exclusively from mentees. A limited number of studies (3.8 per cent) indicated that data was collected from mentees and 'other'—other again referring to those involved in the mentoring program.

Conceptual framework of studies

A number of authors (Gibb, 1999; Jacobi, 1991; Healy & Welchert, 1990) claimed that very few studies have located mentoring within a wider theoretical framework. Gibb (1999:1) commented that 'a substantive

theoretical analysis of mentoring has been absent, implicit, limited or underdeveloped'. Healy and Welchert (1990) suggested that mentoring theory continued to have definitional problems due to the failure of researchers to ground it in appropriate theory. Likewise, in her extensive review of the literature on mentoring and academic success, Jacobi (1991:522) concluded that '[o]ne of the weaknesses of research about mentoring is the lack of theoretical or conceptual base'. Against this backdrop we were interested in determining the extent to which the reviewed studies had referred to a conceptual framework that assisted in the formulation of the research process at hand.

Of the studies reviewed only 22 of the sample of 159 (13.8 per cent) identified and discussed to some extent, at least one conceptual or theoretical perspective. The authors of these studies tended to use such terms as 'model(s)', 'framework', or 'theory' to describe the conceptual framework upon which the studies were apparently based.

There was immense variability in the importance accorded the conceptual frameworks in each of the 22 studies. For example, in the studies conducted by Reiman and Theis-Sprinthall (1993), and Reiman, Bostick, Lassiter and Cooper (1995), the conceptual frameworks were discussed in some detail. In other studies, such as that by Lee and Crammond (1999), a relatively brief reference was made to the conceptual framework.

From an examination of the 22 studies, 13 seemingly different theories or frameworks were identified. The theories or models identified were adult development theory, developmental stage theory of adults, cognitive development theory, adult learning theories, social capital theory, role model theory, theory of possible selves, models of mentoring, constructivist/socio-cultural theories, coaching/skill development models, social exchange theory, contingency theory, and change theory. The most frequently mentioned theories or models were adult learning theories, developmental stage theories of teachers, cognitive development theories, and adult development theories. Each of these is briefly discussed.

Adult learning theories were the dominant conceptual framework in eight of the studies. These theories included Brookfield's (1986) theory of adult learning, Daloz's (1986) theory of adult learning, Kolb's (1984) theory of experiential learning, and Schon's (1987) theory of reflection on learning. The basic tenet of these theories is that learning will be facilitated if learners (ie mentees) are supported and challenged by their educational environment.

The second most frequently identified conceptual framework was based on the developmental stage theory of teachers. Six studies cited this theory, which was either based on, or adapted from, Fuller's (1969) Stages

of Concerns. These studies argued that the mentoring process would be more effective if mentors had an understanding of the stage of development that their particular mentee was experiencing.

In five of the studies reference was made to cognitive development theories. These studies referred to the work of Sprinthall and Thies-Sprinthall (1983) on cognitive development, and Vygotsky's (1978) social interaction theory. These frameworks proposed that it is important to appreciate the way adults construct and make meaning of their experiences.

Adult development theories based on the work of Levinson, Darrow, Klein, Levinson and McKee (1978), and Sheehy (1976), were noted in a further four studies. These studies viewed mentoring as an appropriate means of assisting adults in their transition from one stage of life to another.

Outcomes Associated with Mentoring

The studies were coded according to whether they reported positive, negative or both positive and negative outcomes. These outcomes then underwent thematic analyses in order to identify higher level themes or meta themes.

Positive Outcomes

Of the studies reviewed, 57 (35.8 per cent) reported only positive outcomes as a result of mentoring, while a further 86 (54.1 per cent) reported a mix of both positive and negative outcomes. Taken together then, almost 90 per cent of studies reviewed attributed some positive effect associated with mentoring activities. In contrast, only four studies (2.5 per cent) exclusively reported negative outcomes. In order to shed light on the types of positive outcomes, it was necessary to differentiate outcomes according to potential recipients—mentor, mentee, and organisation.

Mentor

Less than half (47.8 per cent) of the studies that reported some positive outcome associated with mentoring, identified benefits for the mentor. These benefits are presented in Table I. As the table illustrates, the most commonly cited positive outcome for mentors was that of collegiality. More than one third of the studies noting positive outcomes for mentors highlighted benefits associated with collaborating, networking or sharing ideas with colleagues. School principals in Brady's (1993) Australian

qualitative study, for example, noted 'cross fertilisation of ideas' and 'honest exchange of ideas' as being beneficial outcomes of mentoring (p.95), while a teacher in Downey's (1986) United States investigation of the California Mentor Teacher program noted that mentoring provided 'a unique opportunity for teachers to share and exchange ideas with other teachers' (p.26).

TABLE I
Categories and frequencies for positive mentor outcomes

Outcome	N	per cent
Collegiality/collaboration/ networking/sharing ideas/knowledge	33	20.8
Reflection	31	19.5
Professional development	28	17.6
Personal satisfaction/reward/growth	26	16.4
Interpersonal skill development	16	10.1
Enjoyment/stimulation/challenge	16	10.1
Improved /revitalised /enlivened teaching/practice	15	9.4
Role satisfaction	15	9.4
Professional recognition/respect	15	9.4
Exposure to new ideas/latest trends/theories	12	7.5
Professional/mutual support/benefit	10	6.3
Friendship/emotional support	9	5.7
Increased confidence/self esteem/worth	7	4.4
Give back to/advance/serve profession	6	3.8
Gives sense of purpose	4	2.5
MISCELLANEOUS	2	1.3

The second most frequently cited positive outcome for mentors was reflection. Thirty-one studies (19.5 per cent) attributed reflection or reappraisal of beliefs, practices, ideas and/or values to mentoring activities. A comment by one teacher in Ganser's (1992) investigation of a United States mentor teacher program is typical of those that were grouped within this category, 'It's really made me more reflective in my own teaching, made me more clear about my priorities, what's important to me in the classroom, why I do things the way I do, why they

work for me ...' (p.13). Likewise, in their evaluation of a United Kingdom mentoring scheme for newly qualified teachers (NQT's), Bines and Boydell (1995) commented that mentoring 'encouraged them to reflect on their own as well as the NQT's practice' (p.58).

According to data contained in 28 (17.6 per cent) of the studies, mentoring facilitated professional development among mentors. One mentor teacher in Murray, Mitchell and Dobbin's (1998) study described her experience as 'a worthwhile professional experience in its own right' (p.24), while Hanson (1996) quotes a mentor in her United Kingdom study as saying that mentoring 'added another dimension to his experience' (p.55).

Twenty-six of the reviewed studies (16.4 per cent) also reported personal satisfaction, reward or growth as an outcome of mentoring. In Griffin's (1995) investigation of women mentors in higher education, one mentor stated, 'I feel a bigger person' due to her mentoring role (p.23). Similarly, a mentor in Holmes (1991) study of mentoring in teacher education commented 'I love working with these students and learn so much from them as well as about myself as I work with each one' (p.7). Interestingly, fewer studies (9.4 per cent) noted role satisfaction as a positive outcome.

Sixteen studies highlighted some form of interpersonal skill development as a result of mentoring. A mentor in King's (1986) study of women mentors, for instance, commented 'I think, more than just being a better teacher, it makes me a better person because the communication skills that are learned are just tremendous' (p.16). Similarly, another mentor in Griffin's (1995) investigation stated 'I have learnt not just to talk to people but to listen as well' (p.22). Other positive outcomes for mentors included enjoyment, stimulation or challenge (10.1 per cent), professional recognition or respect (9.4 per cent), friendship or emotional support (5.7 per cent), and increased confidence, self-esteem or worth (4.4 per cent).

Mentee.

Of the studies that reported positive outcomes, 131 (82.4 per cent) noted positive outcomes for mentees. This is substantially higher than the 76 (47.8 per cent) of studies indicating positive outcomes for mentors. Of all the studies reporting one or more positive outcome, only 12 (7.5 per cent) failed to identify any positive outcome for mentees.

Thematic analysis revealed 15 categories of positive outcome responses for mentees. These are presented in Table II. The most frequently noted positive outcome for mentees was that related to support and understanding.

TABLE II
Categories and frequencies for positive mentee outcomes

Outcome	N	per cent
Support/empathy/encouragement/counselling/friendship	67	42.1
Help with teaching strategies/subject knowledge/resources	57	35.8
Discussion/sharing ideas/info/problems with/advice from peers	51	32.1
Feedback/positive reinforcement/constructive criticism	44	27.7
Increased self confidence/esteem/worth	34	21.4
Career affirmation/advancement/enthusiasm/commitment	31	19.5
Observing/having role model	25	15.7
Professional induction/acceptance/socialisation	24	15.1
Reflection	24	15.1
Professional development	22	13.8
Knowledge of school policy/uni systems/admin procedures	21	13.2
Interpersonal skill development	15	9.4
Better/realistic prep/expectations/less stress teaching	15	9.4
Encourage independence/risk taking/exploring new ideas	10	6.3
Mutual trust/respect	7	4.4
MISCELLANEOUS	10	6.3

Sixty-seven of the studies (42.1 per cent) reported that mentees benefited from support, empathy, encouragement, counselling or friendship. Comments that were grouped in this category included those noted in Pavan's (1986) United States study of gender in educational leadership and in an investigation of new head teachers in the United Kingdom by Bush and Coleman (1995). Mentees in Pavan's study, for example, ranked support, encouragement, and friendship among the most helpful functions of mentoring, while a mentee in Bush and Coleman's (1995) study stated 'Knowing that there is somebody in the background that I can turn to is a great source of comfort' (p.65).

Also frequently cited by mentees were those benefits related to assistance with classroom teaching. Fifty-seven of the studies (35.8 per cent) identifying mentee benefits pinpointed help with teaching strategies,

content, resources, classroom planning and or discipline. This is reflective of the large number of studies in the review that focused on mentoring for preservice or beginning teachers. Commenting on the experience of being mentored, a preservice teacher in Hardy's (1999) United Kingdom study noted 'I gained a lot of subject knowledge on areas I was not experienced in' (p.182), while a beginning teacher in a United States investigation acknowledged that having 'someone to brainstorm ideas with makes it easier to problem solve when problems arise' (Conley, Bas-Isaac & Scull, 1995:14). Help from mentors in acquiring materials or resources were also appreciated by mentees. A mentee in Putman, Bradford and Cleminson's (1993) examination of student mentoring in a United Kingdom university noted, '... in relation to the issue of style or methodology, he made books and materials available to me, as a kind of prompt' (p.13).

Contact and discussion with others also figured highly with nearly one third of all studies (32.1 per cent) reporting positive mentee benefits noting this. The category comprised those responses noting the sharing of ideas, information and problems. In an investigation of a mentoring program for black/ethnic minority school and university students in the United Kingdom, Showunmi (1996) reported that the program 'acted as a positive form of networking' ... enabling students to 'establish that their problems are not unique to them alone' (p.13). One mentee in Frykholm's (1998) United States study of mentoring in teacher education, described his mentor as 'another resource that I can use to talk about ideas, about next year, and his experiences in schools' (p.310).

Feedback in the form of positive reinforcement or constructive criticism was also a frequently noted positive outcome of mentoring. More than one in four of the studies (27.7 per cent) reported that such feedback was beneficial. A student in Hardy's (1999) study of preservice teacher mentoring in the United Kingdom explained 'you get a picture of the abilities a good teacher needs' from 'feedback from more experienced teachers' (p.183). In his investigation of mentoring in educational administration in Singapore, Tin (1995) cites one mentee as saying, 'Everyday a session is provided for me to go through the completed tasks and my mentor would give me her evaluation and feedback. This is most useful' (p.22).

Numerous other positive outcomes for mentees were noted in the studies. More than 21 per cent of those acknowledging positive outcomes for mentees noted gains in self-confidence, worth or esteem, while a further 19.5 per cent claimed that mentoring helped with career related issues (affirmation, advancement, enthusiasm and commitment). Additional positive outcomes included professional induction, acceptance

or socialisation (15.1 per cent), skills and mutual trust and respect (4.4 per cent).

Comparison of mentor and mentee response categories reveals several commonalities across the groups. Both groups were reported to have experienced positive outcomes in terms of reflection, increased self-confidence, worth or esteem, professional development, and interpersonal skill development. Examination of the frequencies for these categories reveals similarities and differences between the mentor and mentee groups. Regarding interpersonal skill development for example, little difference between the groups was apparent. Around 10 per cent of studies reporting positive outcomes for mentors and 10 per cent of studies reporting positive outcomes for mentees noted interpersonal skill development as an outcome. Variation between the groups was more marked for reflection on beliefs and practices (mentors 19.5 per cent, mentees 15.1 per cent), and professional development (mentors 17.6 per cent, mentees 13.8 per cent), but was particularly significant for increased self-confidence, worth or esteem. While 21.4 per cent of studies reporting positive outcomes for mentees highlighted gains in self-confidence, only 4.4 per cent reporting positive gains for mentors noted this.

Organisation

The outcomes discussed thus far were articulated by, and impacted on, mentors or mentees. However, the review of literature revealed additional outcomes that were either discussed by other research participants (such as school principals, administrative or academic staff), or the members of the research team, or were more holistic in nature. In all, 26 (16.4 per cent) of the studies cited one or more positive outcome that impacted directly on the organisation. More often than not, these outcomes were discussed by researchers or research participants other than the mentor or mentee. Interestingly, Ganser (1993) highlighted the propensity of mentors and mentees to relate the benefits of mentoring to themselves or each other. He stated, 'Only rarely do the subjects include other beneficiaries of mentoring such as the children in the school' (p.9).

Ten categories of positive organisational outcomes emerged from the reviewed studies (refer Table III). The most frequently cited of these related to observable effects on students. Ten studies reported behavioural or attitudinal benefits or improvements for students as a result of mentoring. According to MacFarlane and Joughin (1994), for example, peer mentoring among law students at an Australian university increased levels of attendance at lectures. Findings from their study also suggested

that due to mentoring, students were adopting a deep approach to learning, something described by the authors as 'active engagement in problem solving, seeking connections between what they are studying and real life ...' (p.167). High school science students in Scharmann's (1994) United States study were also considered to have benefited from mentoring. However, in this case, it was the teachers, not students, who were mentored by peers. Designed to improve the teaching of science, the program involved teachers being mentored in student-centred instruction by their peers. Scharmann (1994) concluded that as a result of their teacher's mentoring, students experienced gains in their understanding of the nature of science.

TABLE III
Categories and frequencies for positive organisational outcomes

Outcome	N	per cent
Improved education/grades/attendance/behaviour of students	10	6.3
Support/funds for school	5	3.1
Contributes to/good for profession	4	2.5
Less work for principals/staff	4	2.5
Retention/continuity of mentored teachers	3	1.9
More competent beginning teachers	3	1.9
More effective school leadership	2	1.3
Improved communication/partnerships with higher education	2	1.3
Good PR for school	2	1.3
Helps develop common values	2	1.3
MISCELLANEOUS	3	1.9

Increased support or funds for schools was another positive organisational outcome cited in the studies. Spargo (1994) noted in her Australian investigation of a mentoring program for beginning teachers, that mentees were considered additional staff members for the school. While at the school, mentees freed some existing teachers to undertake other responsibilities. On the other hand, staff in Hanson's (1996) United Kingdom study of preservice mentoring, claimed that a benefit associated

with mentoring was the money received by schools in return for having preservice teachers.

Several studies each reported gains from mentoring associated with reduced workload and benefits to the teaching profession. Participants in Mims' (1993) study in the United States were in agreement that the presence of mentors in a school reduced the amount of time that administrators needed to spend with new teachers. In relation to contribution to the profession of teaching, mentors in Ganser's (1992) study, claimed that mentoring reduced 'burn-out' and ultimately the attrition rate, among beginning teachers.

In addition, retention or continuity of mentored teachers, more effective leadership for schools, and improved communication between schools and universities were among the other organisational benefits noted in the studies.

Problems Associated with Mentoring

Ninety-six (60.4 per cent) of the articles reviewed identified one or more problems associated with mentoring. As with positive outcomes, problems associated with mentoring are discussed according to mentor, mentee and organisation.

Mentor

Seventy-seven (48.4 per cent) of the studies that reported problems, identified problems for mentors. Fourteen categories emerged from the responses, while a further eight responses were unable to be categorised. As Table IV indicates, the most frequently cited problem to emerge from the responses was lack of time. Forty-four (27.7 per cent) of all the studies noting problems for mentors identified lack of time.

Fourteen of the fifteen mentors in Ackley and Gall's (1992) study of preservice teacher mentoring in Oregon claimed that lack of time was their 'greatest impediment' (p.17), while Robinson (1993) concluded from interviews with mentors in a United Kingdom teacher education mentoring scheme that, 'The time allocated doesn't allow subject mentors to do the job as fully as they would like ...' (p.27).

Professional expertise or personality mismatch was the second most frequently cited negative outcome. Unsuccessful matches between mentors and mentees were reported in 27 (17 per cent) studies noting negative outcomes for mentors and were either the result of personality, ideological or expertise differences. Conley *et al.* (1995) referred to this match or mismatch as the 'fit' between mentor and mentee. Their United States study revealed that this fit was less successful in elementary school settings when compared with secondary school settings. Ganser's (1995)

survey of mentor teachers, also conducted in the United States, indicated that professional and personality mismatches are a major concern for mentors. Mentors in this study expressed anxiety about not getting on with their mentee, having to assist mentees who are working at different grade level or have a different philosophy to their own.

TABLE IV
Categories and frequencies for mentor problems

Problem	N	per cent
Lack time	44	27.7
Professional expertise/personality mismatch	27	17.0
Lack training/understanding program/goals/expectations	24	15.1
Extra burden/responsibility	24	15.1
Frustration w mentee performance/attitude/lack commitment/trust	15	9.4
Conflicting mentor role—advice versus assessment	12	7.5
Lack support/resources/encourage/interest from others	12	7.5
Emotionally draining/stressful	11	6.9
Lack of proximity	8	5.0
Jealousy/negative attitudes from others	7	4.4
Interference/demands from authorities	5	3.1
Mentoring not always necessary	4	2.5
Unrealistic mentee expectations	4	2.5
Being considered threat/know-all/spy	4	2.5
MISCELLANEOUS	8	5.0

Equal numbers (15.1 per cent) of studies reported lack of training or understanding of program goals or expectations and extra burden or responsibility as negative outcomes associated with mentoring. In such cases mentors reportedly felt limited in their effectiveness due to lack of training or felt overwhelmed by the added responsibility of mentoring. A mentor in Ganser's (1992) United States study of mentoring in beginning teaching admitted 'I didn't really know what was expected of me' while another stated 'I have no idea what my responsibilities are and I suspect he (mentee) probably doesn't either' (p.21). Another mentor in the same study stressed the importance of providing prospective mentors with more information about the role so that they have a clearer understanding

of what they are 'getting into' (p.23). In relation to the added burden created by mentoring, a mentor in Hanson's (1996) United Kingdom study explained, 'you are having to add the role of mentor to an already full workload' (p.55). For some mentors, such as those in Campbell's (1995) study of mentor-teachers in United Kingdom primary schools, the dual roles of classroom teacher and mentor caused a conflict of priorities. Campbell (1995) described the problem of dividing time between preservice students and children as a major dilemma for mentor-teachers.

A further 15 (9.4 per cent) studies noting negative mentor outcomes pinpointed problems with mentees. In many of these studies mentors had experienced problems due to either their mentees' poor performance or attitude or their lack commitment to or trust in their mentor. In Herndon and Fauske's (1996) study which focused on mentor teacher journals, one mentor noted 'I am somewhat frustrated because I feel that he is not supporting my rules ... Isn't a student teacher supposed to follow the classroom policies of the teacher?' (p.37). Similar comments were made by a mentor in Bower and Yarger's (1989) examination in the United States of mentor-intern relationships. This particular mentor described their mentee as 'a strong-minded individual who doesn't respond to suggestions easily ...' (p.63).

A small number of studies also indicated that unrealistic mentee expectations of the mentor or program were problematic for mentors. Other negative outcomes to emerge from the review included difficulty balancing support or guidance with evaluation or independence (7.5 per cent), lack of support, resources, encouragement or interest from others (7.5 per cent), and jealousy or negative attitudes (4.4 per cent).

Mentee

Sixty-eight (42.8 per cent) of the studies reporting problems associated with mentoring identified problems for mentees. Thematic analysis revealed 15 categories of responses and these are shown in Table V. It is worth noting that Eby, McManus, Simon and Russell (2000) reported a taxonomy of negative mentoring experiences based on descriptive accounts from mentees. In their study content analysis was used to identify 15 types of negative mentoring experiences and these in turn were clustered into five broad themes, namely, match within the dyad, distancing behaviour, manipulative behaviour, lack of mentoring experience and general dysfunctionality. Although examples of these themes were evident in our database, differences existed and these will be mentioned later in this paper. As with problems for mentors, one of the most frequently identified problems for mentees was lack of mentor time. Twenty-four (15.1 per cent) of the studies identifying problems

for mentees, made reference to lack of time with mentors. Interestingly, nearly twice as many (44) studies identified lack of time as being a problem for mentors than for mentees. A trainee teacher in Younger's (1995) study of teacher education partnerships in the United Kingdom reported 'My mentor never has time; he is always so busy that I feel acutely embarrassed if I need to bother him ...' (p.32). Similarly, one preservice teacher in Hardy's (1999) study commented that mentors 'need to be freed of more lessons to help us and spend time with us—they're always too busy' (p.185).

TABLE V
Categories and frequencies for mentee problems

Problem	N	per cent
Lack of mentor time	24	15.1
Professional expertise/personality mismatch	20	12.6
Mentors critical/out of touch/defensive/stifling/untrusting	17	10.7
Difficulty meeting/observing/being observed	15	9.4
Lack mentor support/guidance/knowledge sharing/feedback	14	8.8
Lack mentor training/understanding program goals/needs	11	6.9
Lack of mentor interest/commitment/initiative	8	5.0
Ineffective/inappropriate advice/modelling	7	4.4
Lack of proximity	6	3.8
Reluctant to seek help/question	5	3.1
Feelings of inadequacy	5	3.1
Difficulty coping with criticism	3	1.9
Unrealistic expectations from mentor	3	1.9
Conflicting mentor role—advice versus assessment	2	1.3
Unequal status in schools	2	1.3
MISCELLANEOUS	12	7.5

The second most frequently noted problem for mentees related to mentor characteristics. Twenty (12.6 per cent) studies reporting problems for mentees referred to some kind of professional expertise or personality mismatch between themselves and their mentor.

Professional incompatibility generally stemmed from differences in philosophy or ideology or specialist knowledge. No less significant were mismatches caused by personality differences that strained or made unworkable, mentor-mentee relationships. Research in the United Kingdom, for example, found that personality differences were instrumental in the failure of some of the relationships between mentors and new teachers in schools. Two mentees in a study by Turner (1993) had strongly differing views from their mentors resulting in ineffective or unproductive relationships. In another United Kingdom study, Robinson (1993) observed that some mentees in his study of a mentoring scheme for beginning teachers felt inhibited by the divergence of their views or teaching styles and those of their mentors.

A further 17 (10.7 per cent) of studies highlighted incompatibility between mentors and mentees due to mentors being critical, out-of-touch, defensive, stifling or untrusting. Reports from mentees in these studies indicated that they felt mentors had been overly harsh in their criticism, were out-of-date in their thinking, did not respond well to criticism or questioning of their beliefs or practices, did not allow mentees any freedom and had little faith in their mentees' abilities. In the United Kingdom, discussions with mentee preservice teachers revealed that lack of mentor flexibility, coupled with mentor authoritarianism had contributed to the demise of their relationships with mentors (Yau, 1995). Several students in Hanson's (1996) United Kingdom study suggested that lack of openness and flexibility was more apparent among older, more experienced teachers who 'having developed their own style of teaching, are so convinced of its superiority that they are reluctant to allow students any space to experiment and try ideas they have learnt at university' (p.57). However, lack of flexibility or trust appears not to be confined to preservice teachers. Potential school principals (mentees) in Tin's (1995) Singapore study experienced similar problems with their mentors. One mentee commented, 'The principal did not trust me to run the school as she did not want to be held accountable for any mistakes that I might make' (p.24).

Finding mutually convenient times for meeting, observing or being observed by their mentors was identified in another 15 (9.4 per cent) studies as being a problem for mentees. In Scott's (1997) investigation of beginning teacher induction in New Brunswick, timetable clashes meant that opportunities for mentees to observe their mentor were limited. Quinn (1994) also reported lack of opportunities for observation in her United States study of teacher induction. In order to overcome the predicament, Quinn (1994) recommended that release time for both mentors and first-year teachers to observe one another, as well as to meet

to discuss concerns or successes, should be part of the weekly schedule (p.11). Other problems reported by mentees in the reviewed studies included lack of support, guidance, knowledge sharing or feedback from mentors (8.8 per cent), lack of mentor interest, commitment or initiative (5 per cent), and feelings of inadequacy (3.1 per cent).

Comparison of mentor and mentee negative outcome categories reveals some commonality across the groups. Both groups were reported to have experienced problems stemming from lack of mentor time, lack of mentor training or understanding of program goals or needs, professional expertise or personality mismatch, and lack of proximity.

As already discussed, lack of mentor time emerged more frequently as a problem for mentors than mentees. Likewise, more studies identified lack of mentor training or understanding of program goals or needs, professional expertise or personality mismatch, and lack of proximity as being problematic for mentors. This was particularly apparent for lack of training identified as a problem for mentees in only 11 (6.9 per cent) studies but as a problem for mentors in 24 (15.1 per cent) studies.

Organisation

Fourteen (8.8 per cent) of the reviewed studies revealed one or more problems that had a direct impact on the organisation. These problems were disparate and only two, those of costs and lack of partnership, were reported in more than one study. Eight of the reviewed studies stressed the existence of problems due to costs or lack of funding associated with the running of a mentoring program. It is possible that the lack of time so often mentioned by mentees and mentors **can** be attributed to a lack of funding. According to research by Robinson (1993) and Hanson (1996), schools in the United Kingdom receive inadequate funding for the implementation of preservice or beginning teacher mentor programs. They ascertained that this places additional financial pressure on schools, creates extra work for staff and can lead to schools withdrawing their support.

Lack of partnership or communication with and/or commitment from organisations was reported in studies by Davies and Harrison (1995), Evans, Abbott, Goodyear and Pritchard (1996), and Freiberg *et al.* (1994). Principals in Freiberg *et al.*'s United States study, for instance, commented that better communication among all partners in a mentor teacher program was essential to the success of the program. Similarly, mentor teachers in Davies and Harrison's investigation in the United Kingdom would have liked more contact with representatives from the relevant institution of higher education.

The remaining eight organisational problems identified in the review were one-off responses. These problems were:

- Children can be confused over who is in control in the classroom (Hanson, 1996).
- Limited resources and people to ensure that mentoring is successful (Anderson, 1994).
- Possibility of parental concerns about the quality of teaching (Robinson, 1993).
- Increased workload and/or pressure for schools (Mills, Robinson & Tasker, 1995).
- Pressure to overlook mentee's poor performance to avoid bad publicity for school (Campbell, 1995).
- Competition between schools for students created anxiety for principals regarding the sharing of expertise (Brady, 1993).
- Differing expectations between schools and universities regarding the mentor role (Rosaen, Roth & Lanier, 1989).
- Lack of indicators to measure effectiveness of program (Wagner, 1986).

Discussion

From the review, a demographic profile of the studies into educational mentoring since 1986 emerged. Over half of the reviewed studies were published in journals and more than 40 per cent utilised a mixed-method approach to data collection. In these studies, researchers tended to utilise a combination of survey questionnaires and single or focus group interviews to gather information. Mentor and mentee responses were sought in 56.6 per cent of studies. While a variety of mentoring types was examined, 65.6 per cent of the studies focused on mentoring for preservice or beginning teachers.

The review of studies also indicated that interest in mentoring has remained reasonably constant over the past 13 years. Most research activity has occurred in the United States where more than 60 per cent of the reviewed studies were conducted. This predominance of studies from the United States is not surprising. Here, mentoring has a long-standing role in the nurturing of staff in industry and business and, for both the mentor and mentee, can be integral to career advancement. Although the infiltration of formal mentoring programs into education has been slower and arguably less widespread, there appears great conviction in the potential of mentoring to enhance teaching and learning. Funding of mentoring programs bears testimony to such confidence. As far back as 1986, teacher mentoring duties in some programs in the United States attracted a yearly remuneration of up to \$7000 (Taylor, 1986).

Few of the studies reviewed aligned themselves with a particular definition or view of mentoring. This, too, was not surprising in light of the lack of consensus surrounding what actually constitutes mentoring. As Yau (1995) explained, 'There is no one model of mentoring' because 'the role of the mentor carries a variety of definitions within different contexts' (p.48). Yau adds 'The role of the mentor and the whole meaning of the process of mentoring is indefinite and unlimited' (p.48). Rather than defining mentoring, most of the studies reviewed opted to describe the varied characteristics of, or the activities undertaken by, the mentor. This 'definitional vagueness' according to Jacobi (1991) however, adds little to the field of research into mentoring. Conversely, Jacobi (1991) contends that it results in a 'continued lack of clarity about the antecedents, outcomes, characteristics, and mediators of mentoring relationships' (p.505).

There was little cohesiveness, too, among the theories that were purported to underpin some of the studies. Although most were fundamentally based on notions of adult development or learning, numerous variations on these themes existed. Some like the Stages of Concern theory (Fuller, 1969) had unique relevance for developing teachers. Others embedded mentoring within a wider socio-cultural context, or proposed that it was inextricably linked with the process of reflection.

The review revealed that underpinning many of the problems associated with mentoring was a lack of funding. Lack of funding was seen to have implications for the amount of time that mentors were able to spend with mentees; the availability, quality, and consistency of training for mentors; the supply of support staff, particularly those needed to replace teachers when they were absent from their own classrooms; as well as the lack of ongoing commitment to, interest in and evaluation of programs.

Scandura (1998) has suggested that there is likely to be a low base rate with respect to mentees' perceptions of negative expectations. Although positive mentee expectations did substantially outnumber negative expectations, we found that 42.8 per cent of the 159 studies reported specific negative outcomes for mentees. As mentioned previously, we could identify a number of the Eby et al (2000) themes in our mentee database. However, a comparison of the two databases may not be justified as the Eby et al (2000) data came from participants in two executive development programs and the database used in this study arose from an examination of educational studies. This does raise the possibility that the outcomes of mentoring programs could be related to the professional contexts of participants.

For many mentors, it was clear that mentoring was an additional burden or responsibility that went unnoticed or unsupported by others. Mentees, too, occasionally commented on a lack of support or interest by others as well as the inappropriate or ineffective advice provided by their mentors. Both groups frequently pinpointed personal or professional incompatibility as impediments to the success of their relationship, along with a lack of proximity to one another. A range of problems also emerged from the review that could be seen to impact on those organisations involved in mentoring. Organisations were confronted with difficulties including lack of partnership, differing expectations between their own and other institutions, high costs associated with running programs and increased demand for limited resources.

While the findings confirmed that mentoring is far from a panacea for society's educational ills, it would appear to offer numerous, far-reaching benefits. Many of the reviewed studies indicated, that for beginning teachers in particular, mentoring could provide unrivalled professional and emotional support, as well as career affirmation. Indeed, research such as that conducted by Brown and Wambach (1987), suggested that attrition rates were lower among new teachers who had been mentored. This is encouraging news for a profession in which approximately 30 per cent of teachers in the United States leave within their first two years of teaching, while 50 per cent leave after four years (Boschee, 1996). Other benefits for mentees in education included increased self-confidence and interpersonal skill development.

For mentors, rewards associated with mentoring typically stemmed from professional and personal development and satisfaction. *Reflection* was also frequently cited as a beneficial outcome of mentoring. Widely used in educational circles, the term reflection refers to the process of thinking about one's own beliefs and practices as they relate to teaching. Reflection is considered fundamental to the overall development of the teacher.

A number of studies, including those by Kozleski, Sands, and French (1993) and Ackley and Gall (1992), also found that mentoring evoked renewed interest in and enthusiasm for teaching, while Bolam and McMahon (1995) and Ganser (1992), noted that contact with mentees and other mentors helped reduce mentors' feelings of isolation and stagnation. According to Ganser (1992), mentors in his study regarded themselves as equal, if not greater, beneficiaries of the mentoring process than their mentees. Organisations were also seen to benefit from the implementation of mentoring programs. In several studies an improved standard of education was attributed to mentoring programs, along with

increased financial or human resources and better retention rates of new teachers.

At a glance, findings from the review would suggest that mentoring offered considerably more benefits than drawbacks for both the mentee and mentor. Compared with the 58 studies that reported only positive outcomes, only four studies exclusively reported negative outcomes associated with mentoring. Whether or not such positive outcomes outweigh the problems, however, is a matter of conjecture and can only be determined by the individuals involved in a specific context. Although mentoring can have a 'dark side' (Long, 1997), we have no reason to change a conclusion reached elsewhere that 'the negative outcomes associated with mentoring can be minimised by time and effort being directed toward the design and implementation of theoretically sound programs' (Ehrich & Hansford, 1999:105). However, as Ragins, Cotton and Miller (2000) point out even well designed mentoring programs can be minimised when the quality of the mentor pool is marginal. The review also elucidated factors that can clearly impede the success of any mentoring program. Firstly, concerning relationships, incompatibility between the mentor and mentee can clearly undermine the mentoring process. It seems evident that successful mentoring relationships are more likely when mentors and mentees are carefully matched in terms of professional expertise and personality. Secondly, in relation to funding, sufficient financial investment in the mentoring program is necessary in order to ensure that mentors have appropriate training, time, energy and resources to effectively and enthusiastically carry out their role. Thirdly, concerning quality, mentoring programs should be subjected to continued appraisal and refinement in order to maximise the potential benefits for all involved.

It should be noted that the review was constrained by a number of limitations. Firstly, the review did not incorporate a cross section of studies from around the world. The most commonly used databases primarily reported research conducted in a limited number of English speaking countries. From personal contact with other researchers, we are aware that literature that describes studies about educational mentoring exists in many countries. However, the costs of locating, obtaining, and in many cases, translating, such literature is prohibitive. Secondly, while it was not our aim to judge the quality of individual studies, it was our perception that some lacked methodological rigour. There is little doubt that the variability evidenced in published material has implications for our capacity to draw conclusions from the overall database. This variability could partially be controlled by taking account of such variables as the methodological soundness of the studies and sample size fluctuations.

This could well be the next step in a major mentoring research project. Thirdly, despite inter coder checking the discreteness of the categories developed for descriptive material remains open to interrogation. It was felt necessary to retain the authenticity and richness of the descriptive data provided in the studies. In doing so, some blurring of the categories may have resulted.

REFERENCES

- ACKLEY, B. & GALL, M. D. (1992, April). *Skills, strategies and outcomes of successful mentor teachers*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco.
- ALLEN, T. D., POTEET, M. L. & BURROUGHS, S. M. (1997). The mentor's perspective: A qualitative inquiry and future research agenda. *Journal of Vocational Behavior*, 51, 70-89.
- ANDERSON, L. (1994). School-centred initial teacher training: a different emphasis rather than degree. *Mentoring and Tutoring*, 2(2), 19-24.
- BALLANTYNE, R., HANSFORD, B. & PACKER, J. (1995). Mentoring beginning teachers: a qualitative analysis of process and outcomes. *Educational Review*, 47(3), 297-307.
- BINES, H. & BOYDELL, D. (1995). Managing support for newly qualified teachers in primary schools. *Mentoring and Tutoring*, 3(1), 57-61.
- BOLAM, R., MCMAHON, A., POCKLINGTON, K. & WEINDLING, D. (1995). Mentoring for new headteachers: recent British experience. *Journal of Educational Administration*, 33(5), 29-44.
- BOSCHEE, M. A. (1996). Perceived effects of training and compensation on rural and urban school-based teacher educators. *Rural Educator*, 18(1), 13-18.
- BOWER, A. & YARGER, G. (1989). Mentor-intern relationships in New York State's formal program: beginnings. *Action in Teacher Education*, 11(2), 60-65.
- BRADY, L. (1993). Peer assistance in the professional development of principals. *Curriculum and Teaching*, 8(1), 91-98.
- BROOKFIELD, S. D. (1986). *Understanding and Facilitating Adult Learning: A comprehensive analysis of principles and effective practices*, San Francisco, CA, Jossey-Bass.
- BROWN, J. G. & WAMBACH, C. (1987, February). *Using mentors to increase new teacher retention: the Mentor Teacher Induction Project*. Paper presented at the annual meeting of the American Association of Colleges for Teacher Education, Arlington, VA.
- BUSH, T. & COLEMAN, M. (1995). Professional development of heads: the role of mentoring. *Journal of Educational Administration*, 33(5), 60-73.
- CAMPBELL, A. (1995). The Mentoring School: tensions and dilemmas for primary schools. *Mentoring and Tutoring*, 2(3), 6-13.
- CONLEY, S., BAS-ISAAC, E. & SCULL, R. (1995). Teacher mentoring and peer coaching: A micropolitical interpretation. *Journal of Personnel Evaluation in Education*, 9, 7-19.

- DALOZ, L. (1986). *Effective Teaching and Mentoring*, San Francisco, CA, Jossey-Bass.
- DAVIES, J. & HARRISON, M. (1995). Mentors' roles in a primary articulated teacher's scheme. *Mentoring and Tutoring*, 3(1), 49-56.
- DOWNNEY, R. G. (1986). *Mentor teachers: the California Model*, Report, The Phi Delta Kappa Educational Foundation, Bloomington, IN.
- DUCK, S. (1994). Strategems, spoils, and a serpent's tooth: On the delights and dilemmas of personal relationships. In W.R. Cupach and B.H. Spitzberg (Eds.), *The dark side of interpersonal communication* (pp.3-24), Hillsdale, NJ, Erlbaum.
- EBY, L. T., MCMANUS, S. E., SIMON, S. A. & RUSSELL, J. E. A. (2000). The protégé's perspective regarding negative mentoring experiences: The development of a taxonomy. *Journal of Vocational Behavior*, 57(1), 1-21.
- EHRLICH, L. C. & HANSFORD, B. C. (1999). Mentoring: Pros and cons for HRM. *Asia Pacific Journal of Human Resources*, 37(3), 92-107.
- EVANS, L., ABBOTT, I., GOODYEAR, R. & PRITCHARD, A. (1996). Developing the mentoring role: some research recommendations. *Mentoring and Tutoring*, 4(1), 38-46.
- FELDMAN, D. C. (1999). Toxic mentors or toxic protégés? A critical re-examination of dysfunctional mentoring. *Human Resources Management Journal*, 9(3), 247-278.
- FEIMAN-NEMSER, S., PARKER, M. B. & ZEICHNER, K. (1992). *Are mentor teachers teacher educators?* Report. The National Centre for Research on Teacher Learning, Michigan State University, MI.
- FREIBERG, M. R., ZBIKOWSKI, J. M. & GANSER, T. (1994, October). *The anatomy of a mentoring program for beginning urban teachers*. Paper presented at the annual meeting of the Mid-Western Educational Research Association, Chicago, IL.
- FRYKHOLM, J. A. (1998). Beyond supervision: learning to teach mathematics in the community. *Teaching and Teacher Education*, 14(3), 305-322.
- FULLER, F. F. (1969). Concerns of teachers: A developmental conceptualization. *American Educational Research Journal*, 6, 207-226.
- GANSER, T. (1992, February). *The benefits of mentoring as viewed by beginning teachers and mentors in a state-mandated mentoring program*. Paper presented at the annual meeting of the Association of Teacher Educators, Orlando, FL.
- GANSER, T. (1993, February). *How mentors describe and categorize their ideas about mentor roles, benefits of mentoring, and obstacles to mentoring*. Paper presented at the annual meeting of the Association of Teacher Educators, Los Angeles.
- GANSER, T. (1995). What are the concerns of beginning and questions of mentors of teachers? *NASPP Bulletin*, 70(575), 83-91.
- GIBB, S. (1999). The usefulness of theory: a case study in evaluating formal mentoring schemes. *Human Relations*, 52(8), 1055-1075.
- GLASER, B. & STRAUSS, A. (1967). *The Discovery of Grounded Theory: Strategies for Qualitative Research*, New York, Aldine Pub. Co.

- GLASS, G. V. (1977). Integrating findings: The meta-analysis of research. *Review of Research in Education*, 5, 351-379.
- GRAHAM, P. (1997). Tensions in the mentor teacher-student teacher relationship: Creating productive sites for learning within a high school English teacher education program. *Teaching and Teacher Education*, 13(5), 513-527.
- GRIFFIN, G. (1995). Student mentoring to facilitate university entry. *Mentoring and Tutoring*, 3(2), 21-24.
- HANSON, B. (1996). Participants' personal perceptions of mentoring. *Mentoring and Tutoring*, 4(1), 53-64.
- HARDCASTLE, B. (1988). Spiritual connections: Protégés' reflections on significant mentorships. *Theory into Practice*, 27(3), 201-208.
- HARDY, C. A. (1999). Preservice teachers' perceptions of learning to teach in a predominantly school-based teacher education program. *Journal of Teaching in Physical Education*, 18(2), 175-198.
- HEALY, C. C. & WELCHERT, A. J. (1990). Mentoring relations: a definition to advance research and practice. *Educational Researcher*, 19(9), 17-21.
- HERNDON, K. M. & FAUSKE, J. R. (1996). Analysing mentoring practices through teachers' journals. *Teacher Education Quarterly*, 23(4), 27-44.
- HOLMES, E. W. (1991, February). *Journaling: A lens for looking at a mentor and a beginning teacher working together*. Paper presented at the annual conference of the Eastern Educational Research Association, Boston.
- JACOBI, M. (1991). Mentoring and undergraduate academic success: A literature review. *Review of Educational Research*, 61(4), 505-532.
- KINDT, I. (1994). *Becoming Professional: Teacher Mentor Practices and Student Teacher Development*. Paper presented at the ATGA Conference, Brisbane, Australia.
- KING, R. M. (1986). *Women mentors as leaders*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco.
- KNAUTH, S. & KAMIN, C. (1994, April). *What happens when it's not training or induction but training and induction*. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.
- KOLB, D. (1984). *Experiential Learning: Experience as the Source of Learning and Development*, New Jersey, Prentice Hall.
- KOZLESKI, E. B., SANDS, D. J. & FRENCH, N. (1993). Preparing Special Education Teachers for Urban Settings. *Teacher Education and Special Education*, 16(1), 14-22.
- LATHER, P. (1999). To be of use: the role of reviewing. *Review of Educational Research*, 69(1), 2-7.
- LEE, J. & CRAMMOND, B. (1999). The positive effects of mentoring economically disadvantaged students. *Professional School Counselling*, 2(3), 172-178.
- LEVINSON, D. J., DARRON, C. N., KLEIN, G. B., LEVINSON, M. H. & MCKEE, B. (1978). *The Seasons of a Man's Life*, New York, Ballantine.
- LONG, J. (1997). The dark side of mentoring. *Australian Educational Research*, 24(2), 115-23.
- MACFARLANE, P. J. M. & JOUGHIN, G. (1994). An integrated approach to teaching and learning law: The use of student peer mentor groups to improve

- the quality of student learning in contracts. *Legal Education Review*, 5(2), 153-172.
- MILLS, S., ROBINSON, B. & TASKER, J. (1995). An attitude survey of teachers involved in a primary mentoring program. *Mentoring and Tutoring*, 3(2), 56-60.
- MIMS, N. G. (1993, February). *Nurturing reflective teachers: A collaborative effort between a college and school district*. Paper presented at the annual meeting of the American Association of Colleges for Teacher Education, San Diego, CA.
- MONSOUR, F. (1998). Twenty recommendations for an administrative mentoring program. *NASSP Bulletin*, January, 96-100.
- MURRAY, S., MITCHELL, J. & DOBBINS, R. (1998). An Australian mentoring program for beginning teachers; benefits for mentors. *Australian Journal of Teacher Education*, 23(1), 21-28.
- PAVAN, B. N. (1986, April). *Mentoring and mentoring functions perceived as helpful to certified aspiring and incumbent female and male public school administrators*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco.
- PUTMAN, K., BRADFORD, S. & CLEMINSON, A. (1993). An analysis of the role of the mentor in professional education. *Mentoring*, 1(1), 9-15.
- QUINN, L. F. (1994). The importance of structure in providing uniform quality in mentoring induction programs. *Mentoring and Tutoring*, 2(1), 5-11.
- RAGINS, B. R., COTTON, J. L. & MILLER, J. S. (2000). Marginal mentoring: The effects of type of mentor, quality of relationship, and program design on work and career aspirations. *Academy of Management Journal*, 43(6), 1177-1194.
- REIMAN, A. J., BOSTICK, D., LASSITER, J. & COOPER, J. (1995). Counselor-and teacher-led support groups for beginning teachers: a cognitive developmental perspective. *Elementary School Guidance and Counselling*, 30(2), 105-116.
- REIMAN, A. J. & THEIS-SPRINTHALL, L. (1993). Promoting the development of mentor teachers: Theory and research using guided reflection. *Journal of Research and Development in Education*, 26(3), 179-185.
- ROBINSON, M. (1993). Warwick University PGCE Mentoring Scheme. *Mentoring*, 1(1), 23-30.
- ROSAEN, C. L., ROTH, K. J. & LANIER, P. E. (1989, March). *Field experiences that teach*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco.
- SCANDURA, T. A. (1998). Dysfunctional mentoring relationships and outcomes. *Journal of Management* 24, 449-446.
- SCHARMANN, L. C. (1994). Teaching evolution: The influence of peer teachers' instructional modelling. *Journal of Science Teacher Education*, 5(2), 66-76.
- SCHON, D. (1987). *Educating the Reflective Practitioner: Toward a new Design for Teaching and Learning in the Professions*, San Francisco, CA, Jossey-Bass.
- SCOTT, N. H. (1997). *Beginning teacher induction program in New Brunswick*. Report, New Brunswick Department of Education, Fredericton, Canada.

- SHEEHY, G. (1976). *Passages—Predictable Crises of Adult Life*, New York, Bantam Books.
- SHOWUNMI, V. (1996). A Black perspective on mentoring. *Mentoring and Tutoring*, 3(3), 12–18.
- SPARGO, H. (1994, July). *What's in it for the mentor? The benefits of mentoring for experienced teachers*. Paper presented at the Australian Teacher Education Conference, Brisbane, Australia.
- SPRINTHALL, N. A. & THIES-SPRINTHALL, L. (1983). The need for theoretical frameworks in educating teachers: A cognitive-developmental perspective. In K. Howey and W. Gardner (Eds.), *Education of Teachers: A Look Ahead*, (pp.74–97) New York, Longman.
- SPSS INC. (1999). *Systat 9: Statistics 11*. Chicago, ILL, Systat Inc.
- TAUER, S. M. (1998). The mentor-protégé relationship and its impact on the experienced teacher. *Teaching and Teacher Education*, 14(2), 205–218.
- TAYLOR, S. (1986). Mentors: who are they and what are they doing? *Thrust*, May to June, 39–41.
- TIN, L. G. (1995). Mentoring in Singapore: What and how do proteges learn? *International Studies in Educational Administration*, 32(2), 19–27.
- TORRANCE, E. P. (1984). *Mentor Relationships. How They Aid Creative Achievement, Endure, Change, and Die*, New York, Bearly Ltd.
- TURNER, M. (1993). The complementary roles of the headteacher, the mentor and the advisory teacher in induction and school-based teacher training. *Mentoring*, 1(2), 30–36.
- VYGOTSKY, L. S. (1978). *Mind in Society*. Cambridge, MA, Harvard University Press.
- WAGNER, L. A. (1986, April). *A state perspective on teacher leadership roles: The potential of the California Mentor Teacher Program*. Paper presented at the annual meeting of the American Educational Research Association, San Francisco.
- WALE, W. H. & IRONS, E. J. (1990, April). *An evaluative study of Texas Alternative Certification Programs*. Paper presented at the annual meeting of the American Educational Research Association, Boston.
- WEBER, R. P. (1990). *Basic content analysis*, Newbury Park, Sage.
- WILKINS, C. W. (1997). *Effects of a resident mentor teacher on student achievement in mathematics*, Research report Rankin County Schools.
- YAU, C. K. (1995). From a student standpoint: 'My views on mentoring'. *Mentoring and Tutoring*, 3(2), 45–49.
- YOUNGER, M. (1995). 'Now everyone wants to be involved ...': What makes for TQM—total quality mentoring? *Mentoring and Tutoring*, 3(1), 31–37.