

Chapter 18

Mentoring

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Introduction

In a recent feature article published in *Educational Researcher* (2014) Philip Dawson argued that more than three decades of mentoring research has yet to converge on a unifying definition of mentoring. Quoting Jacobi (1991) in her review of undergraduate mentoring, he sustains that the lack of a common definition grows out of the diversity of relationships that are classified as mentoring. Dawson, as Wrightsman (1981), Jacobi (1991), and Crisp and Cruz (2009) are all positioned within the literature of mentoring in higher education, with a distinctive focus on mentoring students in higher education. As I read the article and looked at its reference list, to my surprise I discovered almost no reliance on research studies on mentoring in the broader context of teacher education. Given the wealth of conceptual and empirical publications on mentoring in teacher education, one would expect to find some mention of leading studies in this area, especially since they offer insights on the generic character of mentoring and its growing recognition as a professional practice grounded in an empirical body of knowledge to guide standards and measures of professionalism across disciplinary contexts. For the purpose of this review, if I relied on this reference list, I would be able to spot only a thumbnail of studies out of the 426 studies identified for this search. Should this be surprising? Probably not. Finding a common language that represents an entire spectrum of professional activity for researchers and practitioners is almost an impossible task to achieve; more so in the educational research milieu with its competing paradigms, each established with its own conceptual and empirical language, very often not ‘talking’ to one another (Orland-Barak, 2014). Mentoring students in Higher Education does not ‘speak’ the same language as mentoring student teachers at

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schools or mentoring novices or experienced teachers at the workplace. Each of these categories is treated separately in the literature with reference to different journals and to distinctive research studies in each of the fields. Evidence of such disconnection comes from the recurrent thematic category of ‘mentoring’ subsumed in several, different divisions of the American Educational Research Association, not always talking to one another. For example, taking the frequent and parallel, but not always connected, appearance of Mentoring in ‘Teaching and Teacher Education’ (Division K) and the Mentoring SIG (Special Interest Group) of ‘Education in the Professions’ (Division I). Another example of competing languages and how these may add to the potential confusion and ambiguity in the field is reflected in the different terms used for conveying the same idea of the ‘recipient of mentoring’. As this literature review demonstrates, these recipients are often referred to as mentees, interns, student teachers, novice teachers, or protégées. Although each term is used to represent a particular stage or context of learning (internship, pre-service education, in-service education, induction) in essence, they all address a similar role.

Purpose

This review does not attempt the ambitious goal of ‘putting it all together in one integrative piece’. Rather, acknowledging the differences across views, tendencies and organizational frames, it zooms in to synthesize three decades of research on mentoring, specifically in the context of teacher education, gauging at both pre-service and in-service levels of the practice. The review attempts to offer an interpretative reading of core identified themes in the vast literature of mentoring for teacher learning in the context of teacher education. These themes are presented and discussed with a focus on conceptual and methodological paradigm shifts undergone by the field as well as on the different international contexts within which the study of mentoring has been conducted.

Methods

Data Collection: Literature Selection

Literature was selected through three different online databases to broaden the scope and embrace a wider gamut of publications. For inclusion in the review, studies had to meet two main criteria. First, they had to report original research findings, and second, they had to focus on the use of mentoring in an educational setting, namely, schools. Databases used for the literature search on education contexts included ERIC, LLBA, and Taylor & Francis. An ERIC search using key words

mentor OR mentoring AND teacher resulted in 580 articles. Following that, all non-journal publications were excluded, namely ProQuest and Online submissions including articles that didn't have explicit connection to educational mentoring in teacher learning contexts. That resulted in 142 articles that fulfilled the selection criteria. Similar searches were then conducted in LLBA and Taylor & Francis. LLBA search resulted in 23 entries, only 17 of which proved to be relevant to the topic of mentoring in an educational context. Searching Taylor & Francis provided another 268 relevant articles, 24 of which were already obtained in the earlier searches. Overall, the search of the selected education databases identified 426 papers published between 1990 and 2014. Table 18.1 summarizes the geographical division of the reviewed items (excluding literature reviews, general articles and articles with no access).

Data Analysis: Coding and Categorization

Abstracts of the publications found to match the criteria were transferred into a digital coding sheet. All of the papers were analyzed according to the coding sheet that was developed. Two main aspects of data were coded: Factual data included the year of publication, source (e.g., journal, research report), country of study, length of publication, and data collection techniques employed. Descriptive data included the following elements: Settings of teacher learning (pre-service, in-service, induction and mentoring preparation) aim of the study, main conclusions and implications associated with mentoring for the mentor, mentee, and mentoring programmes. We applied content analysis on the descriptive data to identify underlying themes or categories (Weber, 1990).

This review describes and discusses the main findings that emerged from the content analysis of the descriptive data and the coding of the factual data. The findings are structured according to six organizing-categories identified:

1. Being a mentor: Mentoring roles and functions
2. Mentoring relationships
3. Outcomes of mentored learning
4. Becoming a Mentor: Professional learning and knowledge development
5. Doing Mentoring: Mentor performance and pedagogy
6. The Context of Mentoring: Contexts, policy and programmes.

The sub-categories identified under each of the organizing categories are summarized in Table 18.2.

Table 18.1 Geographical division of reviewed items

Number	Country	Number of articles
1	United States (USA)	178
2	United Kingdom (UK)	78
3	Israel	31
4	Australia	19
5	The Netherlands	14
6	China	12
7	Norway	8
8	Canada	5
9	New Zealand	5
10	Sweden	5
11	Turkey	4
12	France	3
13	Cyprus	2
14	Estonia	2
15	Germany	2
16	Hungary	2
17	Pakistan	2
18	Finland	1
19	Japan	1
20	Jordan	1
21	Malawi	1
22	Palestine	1
23	Rhode Island	1
24	Romania	1
25	Slovenia	1
26	South Africa	1
27	Taiwan	1
28	The Cayman Islands	1
29	UAE	1
30	Vietnam	1
31	Zimbabwe	1
Total	Excluding literature reviews, general articles and articles with no access	386

Findings

Being a Mentor: Mentoring Roles and Functions

This thematic category reviews studies with a major focus on mentor roles and functions, on their professional identity development and on the kind of mentoring relationships associated with different roles: Emotional support, cognitive challenge,

Table 18.2 Themes and sub-categories

Theme	Sub-categories	Number of items
Being a mentor: mentoring roles and functions	Forms of support; the place of context in mentor roles; student teachers' perceptions of mentor roles;	106
Mentoring relationships	Emotional support; managing conflicts and barriers; relationships and mediation;	36
Outcomes of mentored learning	Outcomes of mentees' learning; process that enhance mentees' learning; conditions that support mentees' learning;	73
Becoming a mentor: professional learning and knowledge development	Mentors' knowledge; learning to mentor; contexts for mentoring preparation and development	61
Doing mentoring: mentor performance and pedagogy	Mentor pedagogy; mentoring performance skills; mentoring conversations; mentoring through technology;	74
The context of mentoring: contexts, policy and programmes	Mentoring programmes; mentoring within and across contexts; mentoring and policy	49
Others	Multi-thematic articles; items with no access (8)	27
Sum of items		426

feedback and scaffolding, generators of learning and mediators of knowledge, mediating between stakeholders, supervision and assessment, sustaining relationships and communication.

The mentoring literature on roles begins at the outset of the 1990s with attempts to discern distinctions between the various roles enacted by different players responsible for new teachers' induction: Head teachers, mentors, inspectors and advisory teachers (Turner, 1993; Williams, 1993). The kind of power relations identified distinctions by determining the nature of interactions and desired outcomes. To this end, early work is concerned with mentors' attributions of their role as expert teachers working with beginning teachers, often pointing at mentors' sense of discomfort with the kind of power bestowed on them as supervisors expected to observe and evaluate novices' lessons (Lemberger, 1992).

Forms of Support

Specifically, this cluster of studies focuses on redefining and reconciling traditional roles as teachers and roles as supporters and assessors along with the balancing of the dual roles of support and challenge (Orland-Barak, 2002). The distinctions between unique forms of support and competencies of mentors and the shift from being a classroom teacher to functioning as a mentor for new teachers (Field, 2005) and the forms of mentor support, how these reflect particular roles and how these are evidenced in actual practice, are also themes within this cluster of study.

During the mid-late 1990s we see a developing focus on the ways student teachers receive support by accessing teacher mentors' knowledge and expertise as classroom teachers in mentoring relationships with attention to the type of support that encourages such access. For example, in the context of the United Kingdom Moyles, Suschitsky, and Chapman (1999) suggest that quality of support is not necessarily linked with longer periods of mentoring. Rather, being available to the mentee is a key aspect of a mentor's role. Underscoring the importance of a collegial supportive school culture for the success of mentoring support systems, their findings suggest that when the head teachers provide a style of leadership that maintains the culture of peer professional support, mentoring becomes an element of that collegial ethos. On the issue of availability, again in the United Kingdom, Evans and Abbott's (1997) study suggests that a major element of effective support perceived by mentees is the time mentors can spend with them, an aspect of which mentors are often unaware. Their study also touches upon the passage from teacher to mentor, suggesting that mentor-school teachers' most important perceived commitment is to their pupils, hence leaving less time and energy to engage in school-administered teacher training. With a focus on how cooperating teachers in school-based teacher education programmes in the United Kingdom should support beginning teachers, Furlong and Maynard (1995) suggest preparing mentors towards educative, thoughtful and serious mentoring processes. These processes speak to Hawkey's (1998) recommendation to prepare mentors by challenging them to examine their espoused theories and their theories in action, with a focus on how these differ when the same mentor assists different student teachers (Hawkey).

From 2000 onwards, studies continue to focus on stressing the different roles carried out by mentors of teachers. For example, comparing formal and informal forms of mentor support in the United States, Wasburn, Wasburn-Moses, and Davis's (2012) study shows that formal mentoring around a specific activity can provide the right combination of emotional support, encouragement, and confidence building as much as informal mentoring. Furthermore, they found that accessing mentors' knowledge through informal channels was less likely to provide crucial interventions such as observing the novice and providing guidance on curriculum. In the context of formal mentor-student teacher interactions, several studies focus on how roles are realized in mentoring scaffolding processes and their consequences for promoting or hindering student teacher learning. For example, Mutton, Mills, and McNicholl's (2006) study, in the United Kingdom, focuses on conceptualizing supervisory support roles as they play out in mentoring dialogues with prospective teachers, and on contrasting mentors' perceptions of their roles and responsibilities. With a similar focus on comparing forms of support, Rajuan, Beijaard, and Verloop (2007) compare between student teachers and their cooperating teachers' perceptions of mentoring roles, in an Israeli practicum programme. They found that student teachers ranked very high the role of the mentor to provide support with technical strategies and tips for class management as compared to that of cooperating teachers. Interestingly, both student teachers and cooperating teachers ranked the academic and critical aspects of their support roles very low. The topic of roles is also examined in the context of school-university collaborations and partnerships in

pre-service education (Fairbanks, Freedman, & Kahn, 2000; Long, 1997; Reid & Jones, 1997; Zanting, Verloop, Vermunt, & Van Driel, 1998). These studies emphasize definitions and perceptions of role around forms of support that are grounded in the mentor's educational vision to develop communities of teachers-as-learners, and to advance particular aspects of the teaching-learning environment.

The Place of Context in Mentor Roles

By and large, studies in this area attend to the cultural and political contexts that shape mentors' conceptions of role boundaries (Koster, Korthagen, & Wubbels, 1998), issues of tension between subject specialist roles and generalist roles at the background of the particular school context (Stanulis & Russell, 2000), and professional accountability of mentors and their professional obligations to new teachers and the public they serve (Turner, 1993). A few studies have focused on investigating the roles perceived by mentors as they interact with different stakeholders in the mentoring process. For example, in the context of China, Li (2009) found that mentors tend to take an authoritarian role on the evaluation of their protégés' performance. They also displayed a clear preference for functioning towards other stakeholders more as evaluators than as developers of their protégés' flexibility, creativity and initiative.

Mentoring support functions are also evidenced in the context of distance learning teacher education, such as self-trainer and networker (Butler & Cuenca, 2012). The attempt to define desired mentoring roles and functions is also reflected in studies around the context of recruitment and selection of mentors. For example, in Israel, Nasser-Abu Alhija and Fresko (2014) examined recruitment variables such as mentors' perceptions and attitudes towards matching, role conflict, and the mentoring experience. Other studies mention recruitment and selection parameters in their implications, for the kind of mentoring roles and functions expected in a particular context (e.g., Yavuz, 2011; Younger, 1995). In Yavuz' study in Turkey, for instance, students addressed problems of communication in regard to roles and responsibilities of mentors in terms of guidance, supervision and assistance, leading to specific suggestions for the selection and evaluation of mentors as an outcome of the process.

From the study of exemplary mentors' perspectives and perceptions of role, in Israel (Orland-Barak & Hasin, 2010), we learn that despite the different contexts of practice, star mentors share common perspectives towards mentoring in terms of educational ideologies and envisioned roles and practices, exhibited through the use of a similar professional language. These findings align with Dutch student teachers' perceptions of mentoring skills as combining emotional support and different levels of task assistance (Hennissen, Crasborn, Brouwer, Korthagen, & Bergen, 2011).

Student Teachers' Perceptions of Mentor Roles

From the perspective of student teachers'/mentees' perceptions of 'good' mentoring practices, studies have examined the ability of mentors to explicate to their student teachers the practical knowledge underlying their teaching (Zanting, Verloop, & Vermunt, 2001) as well as the tensions that emerge between student teachers and mentors' role expectations (Templeton, 2003). Studies point to the importance attributed by student teachers to feedback, collegiality, and reciprocity of the relationship, mentor availability and mutual trust as components of a successful mentor-mentee relationship (Löfström & Eisenschmidt, 2009). Indeed, the latter is strongly voiced in various studies that underscore the role of the mentor as responsible for sustaining mentoring relationships. Such a role stresses the importance of building trust, critical feedback and sensitivity to know when to interfere and when to sit back, and as well as to manage conflicts that might emerge between providing pragmatic feedback and functioning as a more relational counselor, equal partner and critical friend (Williams & Soares, 2002). To this end, studies stress the importance of developing the appropriate communicative abilities given the right resources and time (Burton, 1995).

Assessing Mentored Learning

The role of mentors as assessors of teacher learning is yet another aspect of mentors' roles that studies have focused on. From the mid 1990s onwards, there is a slow but growing focus on whether and how to integrate the mentor's role as assessor of student teacher learning. In the Dutch context, Davies and Harrison (1995) suggest that the cooperating teachers, who are now becoming more involved in school-based mentoring, play a significant role in directing student teacher's attitudes and teaching behavior. Their study raises contradictory issues regarding the specific functions of cooperating teachers as supervisors and assessors of student teacher learning and how these should be distinguished from similar roles attributed to university teacher educators-as-mentors. In the context of Swedish teacher education, Fransson (2010) conducted a formal summative assessment of newly qualified teachers. The study analyzed 108 official responses to a report submitted to the Ministry of Education. Findings suggest that few responses (23 out of 108) regarded assessment as an integral part of mentoring. The authors conclude that there is a need to consider the prerequisites, values and objectives of the educational context prior to deciding on the scope, content and processes of assessment of teacher learning by their school mentors. In New-Zealand, Ell and Haigh's study (2014) discusses the complexity of assessing teacher candidates' readiness to take their own class, suggesting that it is a high-stakes decision which requires consideration of multiple, often competing, sources of information. To this end, different complementary research instruments were designed to explore how mentors judge readiness to teach during final practicum placements. Findings suggest that mentors' individual judgments rely primarily on their own experiences and frames of

reference when deciding about readiness to teach. This leads to considerable variability regarding the decisions that they make when assessing student teacher learning.

Mentoring Roles and Functions: Implications for Practice and Policy

The major findings from the review of studies on mentor roles and functions suggest attending to a number of core aspects of mentors' roles and mentoring relationships to guide policy and practice. For one, it is clear that mentors need to be prepared for their roles. Such a preparation needs to put considerable emphasis on distinguishing between the passage from being a classroom teacher to functioning as a mentor of teachers, whether of new or experienced teachers. In each case, mentors need to be equipped with unique competencies for judiciously combining between support and challenge, according to the kind of mentoring relationship that is called for (mentoring student teachers, novice teachers, expert teachers). We also know that successful support systems are best sustained when there is a collegial supportive school culture and when the mentor's educational vision aligns with and is sensitive to the school culture. It is also clear that programmes for preparing mentors need to address issues of tension between subject specialist mentoring roles and generalist roles as mentors, as well as tensions that emerge between mentors' professional accountability to their various constituents (such as obligations to new teachers, to the public they serve, to the teacher education institution or Ministry of Education). To this end, the literature highlights a number of key functions in order to manage the various challenges described. These are: Providing feedback that is both supportive and challenging, establishing collegial relationships, being available for the mentee, establishing mutual trust, engaging in critical feedback, knowing when to interfere and when to sit back, managing conflicts of interest and competing agendas, providing pragmatic feedback alongside functioning as a more relational counselor, partner and critical friend. We also learn that mentors' assessment of student learning is by and large idiosyncratic, relying mostly on mentors' personal own experiences and frames of reference (rather than on a set of defined criteria that draw from a recognized body of knowledge). This hints at the still tentative and often elusive structures of mentoring and mentored learning programmes as well as of those of mentor selection for working in particular contexts of practice.

Mentoring Relationships

Zooming in to the theme of *mentoring relationships*, 21 articles were identified. The theme of *mentoring relationships* has received significant attention in the literature around issues related to emotional support, managing conflicts and mentoring relationships while mediating learning. Regarding expectations from mentoring relationships between novices and their mentors in general, Wang and Odell's (2002)

earlier review of the literature suggests that there is considerable consistency between novices and mentors' expectations of mentoring relationships across pre-service and induction programmes. By contrast, however, Bullough, Young, Hall, Draper and Smith's (2008) study of nine mentors and mentees in the United States points to differences in expectations between the two, in regard to role expectations, conceptions of teaching problems, and ingrained beliefs identified in mentor-mentee relationships. Their analysis suggests that cognitive complexity plays a large role in relational difficulties associated with the differing expectations of mentors and mentees. For example, mentors held strong assumptions that learning to teach was sufficiently challenging to mentees and, therefore, their main role as mentors was to offer emotional support while avoiding criticism. The group of mentees, on their part, expected to be challenged conceptually through critical reflective processes that they felt could not initiate on their own.

Emotional Support

Within relationships, several studies stress emotional support. In the early 1990s, Tellez (1992) focuses on the informal help or advice that 128 US beginning teachers seek, suggesting that beginning teachers are selective in seeking help from experienced teachers they perceive as friendly and caring, independent of whether the teachers are formally recognized as their mentors. Also in the United States context, Bainer and Didham (1994) specify the kind of support behaviors that teachers seek at school, ranking mentoring as one of the prominent ones. Focusing on particular forms of emotional support that mentors provide at both pre-service and induction levels, Wang and Odell's review points to aspects such as socio-emotional support regarding local policy, resources and norms of the culture of teaching to which novices are inducted (Wang & Odell, 2002).

Managing Conflicts and Barriers

From the early 1990s studies focus on how mentoring relationships can be developed and sustained through collaborative frameworks such as action research (Healy & Welchert, 1990), through joint construction of relationships undergirded by mutual respect and acknowledgment of tensions and uncertainties that emerge within the mentor teacher-student relationships, in school-university partnerships (Abell, Dillon, Hopkins, McInerney, & O'Brien, 1995). Beginning teachers' socialization as shaped by the mentoring relationship that develops is also a focus of study. In the United States context, for example, Gratch (1998) presents an unsatisfactory mentoring relationship that eventually had implications for the novice's unsuccessful socialization into teaching. Issues of identity in managing relationships are also treated in the literature. Still in the United States, Johnson (2003) discusses teacher identity issues in an EFL mentor-student teacher dyad, pointing to connections between identity and caring, cultural ways of knowing and doing and

to conflicting religious beliefs that might emerge in teacher-student relations. Adopting a more deterministic approach to mediation, Kilburg and Hancock (2006) examine the recurring problems that can inhibit K-12 mentoring team relationships, in four school districts in the United States, and the intervention strategies, in the authors words, to 'remedy' these problems. In this spirit, they suggest paying attention a number of supporting conditions such as continual assessment of mentoring programmes, financial commitment from the school district and a rigorous mentor selection process. Kilburg (2007) identifies four common problems encountered during formal mentoring relationships, in the United States, affecting the mediation of learning: institutional barriers, issues of time, lack of emotional support, and poor interpersonal skills. Investigating 149 mentoring teams in four school districts over a 2-year period, the study indicates the need for a closer examination of the principal's role in providing the necessary conditions for maximizing the benefits of mentoring processes at schools. An interesting observation around conflicts and barriers that emerge from mentoring relationships is captured by Wang and Odell (2002), in their review. They distinguish between two types of research literature that touches upon the issue from differing perspectives. One is the programme implementation literature, which highlights the dilemmas of teachers becoming mentors and the conditions that shape their developing mentor roles. The other one is the induction literature that focuses rather on the teacher as the recipient and beneficiary of mentorship. Turning attention to the latter less attended perspective, they contend, also raises important issues around conflicts and barriers that mentors experience when teachers' receptivity, and gratitude for aid is questioned.

Attending to the above aspects of mentoring relationships, the research literature between 1995 and 2000 also focused on characterizing the nature of relationships between mentors and student teachers at school, often stressing their character as 'buddy relationships' (Ballantyne, Hansford, & Packer, 1995, in Australia), on creating channels of communication between various partners and assessing teaching competence (Turner, 1993, in the United Kingdom), on creating organic relationships and partnerships and developing teachers as reflective practitioners (Carver & Katz, 2004, in the United States). Studies also point to prevailing perceptions of mentoring relationships as built around peer collaboration, observation and sharing of responsibility for instruction (Gardiner, 2010, in the United States).

Relationships and Mediation

From the 2000 onwards, we also see a surge of studies that focus on mentoring relationships which stress the mediation of knowledge in activity, describing how mentors position themselves in their own school and in training partnerships. Specifically drawing on positioning theory, Bullough and Draper (2004) describes the negotiation of power and positioning processes in a mentoring triad that led to an unsuccessful learning experience for the intern, in the United States. Similarly, and drawing on interview data from immigrant teachers in Australia, Peeler and Jane (2005) discuss the dilemmas for their professional development and shifts in

their definition of self. Mentoring relationships are discussed as a way of bridging the gap between teachers' positions and the social elements of learning and teaching in their new local contexts. Wang and Odell (2007) conceptualize 16 types of mentor-novice relationships and identifies the challenges and complexities associated with mediating novices' learning toward reform-minded teaching. Drawing on exemplary mentoring cases, from several countries, they illustrate mentor-novice relationships, suggesting that developing a shared vision for teaching is a central challenge for using mentoring to support reform-minded teaching. Schmidt's (2008) qualitative study, in the United States, examined the growth of a failing novice teacher whose progress seemed to be related to the quality of mediation as directly related to the kind of relationships she established with different mentors. Three factors appeared to contribute to her success: The style of mentoring, the process of integrating multiple resources and models, and the gradual alignment of the novice's stated knowledge and his teaching practices.

The quality of mentoring relationships and the mediating roles adopted within them is also attended in Ambrosetti and Dekkers (2010), stressing the importance of interconnectedness between partners, in the Australian context. Rajuan, Beijaard, and Verloop (2010) found that in Israeli teacher training programme, matched expectations between student teachers and cooperating teachers explained a high degree of support in student teachers' perceptions of learning to teach, whereas mismatched expectations explained a high degree of challenge. The study concludes that the mixed pattern provides opportunities for mediating learning in an optimal way. Young and Cates (2010) explore the roles of 62 mentors and protégés in the United States as they manage dialectical tensions in the mediation of learning in mentoring relationships. Their analysis reveals that both empathic and directive listening helped the protégé relieve tensions, supporting cognitive reappraisal models of mediation that attend to empathic and directive listening.

Mentoring Relationships: Implications for Policy and Practice

We learn from the literature review on this theme that there are often inconsistencies identified between mentors' conceptions of teaching problems and those of their mentees which, when left unattended, might hamper relationships drastically. These become more acute when socio-emotional support regarding local policy, resources and norms of the culture of teaching to which novices are inducted are ignored by mentors. When initiating mentoring school-university partnerships it is, then, crucial to acknowledge tensions and uncertainties of such a kind, especially if they involve differences between cultural ways of knowing and doing. To this end, mentoring programmes need to be constantly assessed and revised, including financial commitments from the school district (in the case of established partnerships) as well as mentor selection processes. We also know that common problems encountered during formal mentoring relationships that can dramatically affect the mediation of learning relate to institutional barriers, issues of time, lack of emotional support, and poor interpersonal skills. By contrast, mentoring relationships built

around matched expectations, peer collaboration, observation and sharing of responsibility for instruction seem to be successful and positively challenging conditions that allow for bridging the gap between teachers' positions and the social elements of learning and teaching in their new local contexts.

Outcomes of Mentored Learning

This thematic category synthesizes studies on outcomes of mentoring processes, primarily for the mentee, whether student teacher or novice. Compared to the abundance of studies identified in the previous category of roles, this theme is less investigated, suggesting a general tendency in the literature to disconnect between processes of mentoring and outcomes of mentored learning.

Outcomes of Mentees' Learning

An important study in this area is Cochran-Smith's (2001) study in the United States, which examines the outcomes of university-school mentoring collaborations for learning to teach against the grain for social justice, change and responsibility through critique, challenge of common practices and inquiry. Still focusing on learning to teach, but from the perspective of accessing knowledge from mentors, Zanting, Verloop, and Vermunt (2003) in the Netherlands examined 70 student teachers' mentored learning outcomes, showing how they learned to explicate the practical knowledge that they had accessed from their mentors. Student teachers evaluated interviewing and concept mapping as powerful tools for accessing concrete, practical as well as conceptual knowledge. Focusing on mentored learning outcomes, as reflected in 51 mentors and student teachers' appraisals and assessment of lessons during practice teaching, in the Netherlands, Tillema (2009) underscores the considerable variation of outcomes and perspectives exhibited by the different assessments, calling for a more integrated approach to mentored learning to teach. In Norway, Nilssen (2010) describes how mentoring can move student teachers' learning towards constructive teaching forms. Focusing on one in-depth mentoring case study in Norway, the study shows how the student teacher gradually learned to develop a habit of seeing the pupils through analysis of her own teaching. Also in the Norwegian context of mentored learning in mathematics pre-service education, Nilssen, Gudmundsdottir, and Wangsmo-Cappelen (1998) describe how the student teacher developed a language of practice to assist her in examining her own teaching within the zone of proximal development. Onchwari and Keengwe's (2010) is one of the few studies that attempts to connect between mentoring, mentored learning and children's academic performance. Examining the effectiveness of the nation-wide mentor-coach initiative in the United States towards enhancing teacher pedagogy and its effect on children's literacy performance, the findings suggest that for the 44 teachers and classrooms examined, reading and writing scores

benefited significantly more when the teachers participated in mentor-coach initiatives. Focusing on an in-depth case study in the United States, Norman and Feiman-Nemser (2005) attends to some of these connections by illustrating how educative mentoring actually assists and pushes new teachers to focus on students' 'mind activity', while building on their prior knowledge, experience and interests.

Processes That Enhance Mentees' Learning

Within the framework of cultural historical activity theory and activity theory, Moussay, Flavier, Zimmermann, and Méard (2011) describe the outcomes of a 1 year process of mentored learning for a pre-service teacher in France, showing how conflicts of interaction with trainers, peers, experienced colleagues, and students eventually prompted her to construct new goals and pedagogical actions as part of her professional development. Carter and Francis (2001) survey the learning of 220 beginning teachers and 245 supervisors and mentors in New South Wales government schools complemented with six case study schools in different settings across the state. The study indicated the relevance of mentoring support for beginning teachers' professional learning in their induction year. The case studies identified outcomes of learning related to key practices that were enhanced by transmission, transactional and transformational approaches to mentored teacher learning. Furthermore, beginning teachers who had gone through an internship year and had a formally designated mentor scored higher on overall satisfaction with school induction support and on performance, than those with informal mentors or no mentors. Critical ingredients in effective mentoring relationships were the availability of the mentor, and whether they were approachable, friendly, open and actively interested in the development of their beginning teachers. Beginning teachers reported on a high regard for mentors' professional expertise, assistance and support and mentors were valued for providing personal practical knowledge and situationally specific assistance in a diversity of teaching roles.

Making a case for collaborative subject matter oriented induction programmes Smith and Ingersoll (2004) survey in the United States examined the effects of mentoring induction programmes on the retention of beginning teachers. Results indicate that beginning teachers who worked collectively with mentors from the same subject field were less likely to move to other schools and to leave teaching after their first year of teaching. The study is one of the few efforts identified in this review to address Little's concern in her review (1990) back in the 1990s. As she contends:

The power of the mentor role to serve as an incentive to career retention and enhanced commitment has received far less attention in the research literature than its more instrumental aspects, despite the prominent attention to career incentives in the policy rhetoric. The major gains have been conceptual rather than empirical. (p. 338)

This important aspect related to outcomes of mentored learning is still, 15 years later, underdeveloped empirically.

Assessing the effects of collaborative mentoring sequences on the professional development of a pre-service teacher in France, Chaliès, Bertone, Flavier, and Durand (2008) suggest that processes of collaborative mentoring help to provide a better articulation of teaching experiences than traditional models. Orland (2000) describes the learning outcomes of a collaborative mentored learning conversational framework for a group of novice teachers in Israel. As a result of the sessions, the teachers published a booklet of their experiences that was presented in different teacher workshops. Examining case studies in which mentors influenced novices' learning to implement standards-based teaching practices, Wang and Odell's (2002) review of the literature underscores several common processes of teacher mentoring towards desired learning to teach outcomes. For example, encouraging reflective interactions around and re-interpretations of critical incidents in teaching through the perspective of reform-minded teaching, modeling decision making processes to develop solutions in standards-based teaching contexts and communicating constantly and flexibly with novices from where they are at in the learning to teach process.

Conditions That Support Mentees' Learning

In their review, Wang and Odell (2002) contend that teacher mentoring practices are not only shaped by the expectations of novices and mentors but also by school context, curriculum, and the organization of teaching. Several studies identified in this review attend to Wang and Odell's focus on the need to examine the conditions that support or hinder student teachers and novices' mentored learning to teach. Employing constructs from sociocultural theory in a study of 125 student teachers on two training programmes in the United Kingdom, Edwards and Protheroe (2004) discuss the impasses for student teachers' learning from their mentors namely due to the strongly situated character of their learning, which makes it difficult for them to transfer understandings from one context to another. Richter et al. (2013) investigated 700 German beginning mathematics teachers who participated in a pre-test/post-test study over the course of 1 year. The study examined the extent to which the quality of mentoring and its frequency during the first years of teaching influence teachers' professional competence and well-being. Findings indicate that it is the quality of mentoring rather than its frequency that explains a successful career start. They also suggest that mentoring that follows constructivist rather than transmissive approaches to learning enhance teacher efficacy, teaching enthusiasm, and job satisfaction and reduces emotional exhaustion. Connecting between mentored learning and its outcomes for teacher attitudinal change as classroom teachers, Dierking and Fox (2013) examine the effects of a National Writing Project professional development model on a group of middle school writing teachers, in the United States. The authors discuss how contact with other professionals and mentors influenced teachers' self-concept as professionals, as writers, and as colleagues. As a result, teachers were re-motivated to teach and gained confidence in their expertise and ability to make classroom choices and decisions. Devos (2010)

considers the implications of mentoring for the discursive formation of professional identities of newly graduated teachers in Victoria, Australia. The paper stresses the relationship between mentored learning and the performative culture of schools, suggesting that mentoring needs to be located within its institutional and political contexts as a technology for the production of worker identities. As she argues, the professional standards that were examined make brief reference to teachers as active members of their profession but this abstraction does not capture what it means to work in a complex and highly porous environment, with all its complexities, politics, tensions, and pleasures.

Outcomes of Mentored Learning: Implications for Policy and Practice

Connecting between processes and outcomes of mentoring seems to be the near challenge of future research on mentoring. The studies reviewed support this contention, especially when witnessing the considerable variation of outcomes and perspectives exhibited by the different forms of assessments, and the explicit call to present a more integrated approach to mentored learning to teach. Said that, examining processes and outcomes discretely, studies shed light on important outcomes of student teacher learning as a result of mentoring: Developing habits of seeing the pupils through analysis of their own teaching, developing a professional language to describe their practice, focusing on students' 'mind activity', while building on their prior knowledge, experience and interests, managing conflicts of interaction with colleagues, and constructing new goals and pedagogical actions. The processes that seem to promote this kind of outcomes relate to working collectively with mentors from the same subject field, encouraging reflective interactions around critical incidents in teaching, modeling decision making processes to develop solutions, and communicating constantly and flexibly with novices from where they are at in the learning to teach process. We also know that mentoring that follows constructivist rather than transmission approaches to learning enhances teacher efficacy, teaching enthusiasm, job satisfaction and reduces emotional exhaustion. Contact with other professionals and mentors also influences teachers' self-concept as professionals and as colleagues. The impasses identified for student teachers' learning from their mentors relate to mentoring processes that are not attentive enough to the situated character of teachers' learning, often misreading the teaching situation.

Becoming a Mentor: Professional Learning and Knowledge Development

This thematic category includes studies conducted on mentors' knowledge and professional development, on learning to mentor and developing expertise and on contexts for mentoring preparation.

Mentors' Knowledge

A recurrent paradox can be expressed this way: mentors' claims to professional expertise are both demanded by the role and denied by history and circumstance. Implicit in the title of mentor, advisor, consulting teacher, or master teacher is the presumption of wisdom—accumulated knowledge that can serve as the basis of sensitive observation, astute commentary, sound advice, and constructive leadership. What is the nature of knowledge to which a mentor might lay claim—knowledge that could serve as the basis of a relationship with teachers? The claims that underlie mentors' legitimacy rest both on the availability of an externally validated knowledge base and on the credibility of a recognizably knowledgeable work force. In practice, externally derived research knowledge and teachers' own experiential knowledge have often been accorded different weight (Little, 1990, p. 317).

Little's argument suggesting the need to recognize a professional mentoring work force which relies on externally and internally validated knowledge and experience alike is still, at the outset of the twenty-first century, a major challenge for the move towards the professionalization of mentoring. Said that, a considerable number of studies were identified that attends to the study of mentor knowledge. These studies began to surge from the late 1990s onwards. One recurrent topic, especially in the United States context, is preparing mentors with the relevant knowledge base to assist new teachers to manage the needs of culturally and linguistically diverse students. One example is Achinstein and Athanases (2005) study. Drawing on case studies from expert leading mentor practitioners, they propose a framework that equips mentors with both a bi-level and multi-domain knowledge base, focusing on the challenges of targeting both students and teachers. Upon enacting a bi-level knowledge base, the mentor assumes a bifocal perspective on teachers and students. Up-close, the mentor focuses on the new teacher, what she/he knows and needs and, simultaneously, holds the big picture of the students, their learning, and their needs. Pedagogical knowledge and knowledge of equity issues seems to be pivotal for mentoring novices to teach diverse youth and promote equitable learning. Mentors also need knowledge of how local and professional contexts affect new teachers' work, of what diverse learners bring to class and of how to challenge novices to teach culturally and linguistically diverse students while not blaming teachers.

Taken to contexts outside the United States, studies on mentors' knowledge also focus on the exchange and development of new knowledge amongst teams of professionals in Israel and in the Netherlands (Tillema & Orland-Barak, 2006), underscoring the potential of professional conversations as viable channels for such knowledge development. Using a mixed methods approach, the authors investigate two such study teams of mentors, indicating changes in participants' initial views of knowledge mediation as a result of team conversations. In the context of initial teacher training and induction in England and adopting a phenomenological, social constructivist approach to the study of mentoring Jones and Straker (2006) examine mentors' perceptions of the relationship between their professional practice and the knowledge that informs it. Findings suggest that there is a need to extend mentors' professional learning to areas beyond their knowledge as teachers when working

with teachers, such as becoming familiar with theories of adult learning as well as with generic principles underpinning mentoring. Achinstein's (2006) study in the United States and Clarke, Killeavy, and Moloney's (2013) case study in the United Kingdom highlight three critical domains of mentors' knowledge in regard to their political literacy: Reading, navigating and advocating. They discuss how mentors' political literacy can offer novices a way to act in schools' political climates, to address conflicts and, ultimately, to define a professional identity.

Learning to Mentor

Another recurrent topic dealt with in the literature is the process of learning by which mentors learn to become and do mentoring. To this end, a number of studies conducted by Orland-Barak, between 2000 and 2010 provide insights into mentor processes and outcomes of learning to mentor. In the Israeli context, Orland-Barak (2001) focuses on how two novice mentors who are experienced teachers learn to construe their new role by articulating differences and similarities between their practice as teachers of children and as mentors of teachers. Their evolving competencies are conceptualized through the metaphor of "learning to mentor as learning a second language of teaching", suggesting that the passage from being a teacher of children to becoming a teacher of teachers is a highly conscious and gradual process of developing communicative competencies, whereby the mentor learns to redefine her context of teaching in order to make sense of her new context of mentoring. In later study, still in the context of Israeli in-service education, Orland-Barak (2005a) explores learning to mentor from the acquisition of communicative competencies, as identified in initial study, towards a more discursive view of the process as "participation in competing discourses of practice" as identified in subsequent studies. Orland-Barak and Yinon (2005) draw on the methodology of critical incidents, to explore the perspectives of 20 experienced in-service mentors in Israel towards learning to do mentoring. Their stories of critical incidents shed light on the complex nature of mentors' professional expertise, suggesting that experienced mentors' reasoning and behavior constantly fluctuates between a novice and an expert stage, depending upon the nature of the situation and the type of mentor-mentee interaction that the mentor is confronted with. The study highlights the regressions and progressions that play out when experienced professionals take up an additional role, such as in the passage from teaching to mentoring.

Contexts for Mentoring Preparation

The acknowledgement of the role of mentor through formalized contexts for mentor selection and preparation for the job was already critically discussed in Little's (1990) review in the early 1990s:

The formalization of mentor roles brings with it institutional control over selection, or the systematic structuring of teachers' opportunity to assume professional leadership. Issues surrounding the criteria and process for selection have consumed a large share of the political and material resources devoted to implementation, and have occupied a central place in research. (p. 305)

In the context of a 1 year in-service professional development programme for mentors in Israel, Orland-Barak (2006) explored the process and content of mentors' professional conversations as opportunities for collaboratively constructing knowledge about mentoring. The analysis of the content of the conversations revealed that different forms of dialogue constituted unique opportunities for participants to co-construct meanings about different dimensions of their practice, such as jointly learning about possible solutions to a particular dilemma in mentoring or identifying shared experiences associated with mentoring. Several studies draw on social activity theory and action research as frameworks for learning to mentor. In the United States, Athanases et al. (2008) examines four case studies of mentors of new teachers who assumed leadership of teacher induction programmes. Using cycles of action research conducted in a teacher induction leadership network, the case-study inquired into the features of the mentor curriculum, suggesting that the main goal of mentor programmes in urban and high-need districts is to create spaces for mentors to develop action research and inquiry skills in order to systematically inform mentor curricula that is tailored to the particular needs of mentors, new teachers, and students. In Israel, Orland-Barak and Becher (2011) describe how an action research model develops participants' constructions of the gaps and contradictions that they identify in their practices as mentors. These gaps challenge the mentor to navigate as practitioner-researcher, between dyads of competing mentoring; for example, mentor as problem solver versus facilitator, mentor as agent of change versus preserving traditional practices of teaching and learning, and mentor as strategic manager versus reflective practitioner.

From the perspective of encouraging mentors' reflections on their practice, Orland-Barak (2005b) investigated the quality of reflection in two courses for mentors structured around the use of portfolios in Israel. The study surfaces the predominance of mentors' technical reflection on their experiences, raising the question of whether courses structured around the genre of portfolio writing can be conducive to authentic reflection on controversial experiences at interpretative, critical levels, especially in centralized educational systems.

Mentors' Professional Learning and Knowledge Development: Implications for Practice and Policy

The above thematic synthesis suggests that despite the growing number of studies supporting mentor selection within formal mentor preparation programmes, Little's (1990) critique still resonates as relevant and only partially attended:

To what extent do the formal selection processes—which may include formal applications, peer and supervisor recommendations, interviews, observations, simulations, or

portfolios—capture the prospective mentor’s persona among colleagues, or reflect teachers’ expectations of a mentor’s efforts? Despite the scrutiny given to the process by which teachers are selected to be mentors, a still greater burden of proof rests on the mentor who, once selected, must now actually mentor. Here the issue is the congruence among formal selection mechanisms, the actual demands of performance, and the informal regard of colleagues. Selection turns out to be less an event than a continuing process by which mentors earn their titles on the job. (p. 306)

Supporting Little’s and Wang and Odell’s (2002) later review, this review also suggests that further research is needed to develop a deeper and broader understanding of the effects of various models of mentor preparation on mentors’ knowledge, skills, and dispositions in relation to teaching.

Doing Mentoring: Mentor Performance and Pedagogy

This section presents studies that focus on mentors’ performance as related to the skills that they exhibit in practice and specifically, in mentoring conversations which is the main channel through which mentors enact their practice.

Mentor Pedagogy

Focusing on pedagogical issues related to mentoring performance, Martin (1997) reports on an ethnographic study of mentoring in two primary classrooms in United Kingdom. Findings suggest that mentors’ practices usually resemble their practice as teachers and the process and outcomes of mentoring interactions are strongly shaped by the contexts of mentoring. Also stressing mentoring pedagogy, Athanases and Achinstein (2003) draw on practices of 37 experienced teacher induction leaders and mentor/new teacher pairs in the United States. The study shows that mentoring pedagogy which focuses on knowledge of assessment processes can actually move student teachers from a concern with managerial issues to a focus on pupils’ learning, especially of those underperforming. These processes include pedagogies of assessment processes related to the skillful use of assessment tools for students, aligning the curriculum with standards, and formative assessment of the new teacher. Similarly, still in the United States, Achinstein and Barrett’s (2004) findings underscore the development of mentoring pedagogies that offer new teachers a repertoire of frames to diagnose and assess the needs of diverse students. Harrison, Dymoke, and Pell (2006) describe a 2-year induction project in the United Kingdom. Findings suggest that best mentoring practices involve elements of challenge and risk-taking within supportive school environments with clear induction systems in place and strong school ethos in relation to professional development. Moss (2010) focuses on the induction and mentoring pedagogies of early career teachers in the context of a suburban primary school in Victoria, Australia. The study underscores the value of developing reflective mentoring practices of ‘noticing’. Using the

pedagogy of lesson study Cajkler, Wood, Norton and Pedder's (2013) case studies were conducted in two secondary school teaching practice placements in England. It was found that lesson study as a mentoring pedagogy assists participants to explore collaboratively what they refer to as the 'pedagogic black-box' enriching the experience and learning of both trainees and mentors. If successfully integrated, lesson study can support teacher development in teaching practice placements.

Mentoring Performance Skills

As early as 1988, Anderson and Shannon (1988) suggest specific behaviors such as teaching, sponsoring and counseling to further the personal and professional welfare of the protégé. These behaviors are, later on, referred to in the literature as mentoring skills and strategies. From the perspective of mentors' skills, in a United States context, Barnett (1995) focuses on the value of utilizing reflective questioning strategies, of clarifying and probing responses, as well as taking a non-judgmental stance towards mentoring student teachers. Connecting mentor skills and the design of training programmes in the Netherlands, Crasborn, Hennissen, Brouwer, Korthagen, and Bergen (2008) investigated video recordings of 60 mentoring dialogues before and after participating in a mentor training programme. It was found that training positively affected the use of supervisory skills around reflection in mentoring sessions with student teachers. In Finland, distinguishing between ethical and unethical mentoring pedagogies, Atjonen (2012) conclude that ethical mentoring pedagogies are characterized by student-centeredness, constructive feedback, careful and empathetic listening and the right combination between flexibility, demand and support. By contrast, unethical mentoring pedagogy is authoritative, devoid of feedback, disrespectful of student teachers' needs, does not keep privacy and neglects basic tasks. Olsher and Kantor's (2012) self-study in Israel explores the instruction of a novice teacher by an expert mentor teacher, while applying the strategy of asking questions rather than telling. Examining the educational potential of question-asking as a key strategy in mentoring, the study suggests that the non-judgmental questioning dialogue strengthened the novice teachers' self-confidence and professional identity and helped the mentor to reframe her own ideas about mentoring. Focusing on 27 Australian experienced mentors' articulation of their pedagogical knowledge, Hudson's (2013) qualitative study focused on specific mentoring practices such as planning, timetabling lessons, preparation, teaching strategies, problem solving, questioning, classroom management and assessment of teaching. Findings showed that there were multiple strategies linked to specific pedagogical knowledge practices such as planning for teaching which also includes co-planning, verbal reflection on planning and showing examples of teacher planning. Drawing on its findings, the article provides a bank of practical strategies for mentoring pedagogical knowledge practices to assist a pre-service teacher's development.

Mentoring Conversations

The issue of mentors' capacity to express their practical knowledge and the unique features of their expertise is at the heart of this theme. This issue pertains to mentors' ability to make what they know accessible to others, their commitment to such an endeavor and the opportunities they take to do so (Little, 1990).

Since the early 2000 there has also been a focus of study on mentoring conversations as pedagogies for developing both student teacher and mentors' competencies. Timperley (2001) reports on a training programme in New Zealand designed around mentoring conversations. Analysis of 22 audio-taped transcripts of feedback conversations between mentors and their student teachers revealed that before training a common pattern of the conversations was practical tips delivered by the mentor-as-expert to help the student teacher overcome practical problems. After training, mentors exhibited more openness to share their concerns and to engage student teachers in reasoning about their personal theories, in an effort to arrive at joint solutions. Strong and Baron (2004) analyzes 64 conversations between 16 veteran teacher mentors and their beginning teacher protégés in the United States. The study focuses on how mentor teachers make pedagogical suggestions to beginning teachers during mentoring conversations and how beginning teachers respond using a cognitive coaching model. The analysis reveals that the cognitive coaching model, indeed, surfaced mentors' avoidance of direct advice through the use of indirect suggestions aimed at encouraging novice teachers to produce elaborated responses. Drawing on observation data from two American and two Chinese mentor-novice pairs in induction contexts, Wang, Strong, and Odell (2004) analyzed the content and forms of mentor-novice conversations about novices' lessons. Findings show that the United States and Chinese mentor-novice interactions were different in focus and form, often opening or restricting novices' opportunities for developing professional knowledge necessary for reform-minded teaching. The differences identified were attributed to the curriculum structures and organization of teaching and mentoring in each country. Drawing on an analysis of group mentored learning conversations, Orland-Barak (2005c) inquires into the nature of a teacher educator-mentor's constructivist pedagogy in the context of a postgraduate course on mentoring in Israel. The study surfaced tensions that reflected the 'competing discourses' that played out between the instructor and participants' discourse. Also situated in Israel, but in the context of in-service education, Orland-Barak and Klein (2005) investigate the meanings that 12 in-service mentors attribute to a mentoring conversation and the extent to which these attributions are realized in their actual conversations in practice. Drawing on visual modes of representation, the study explored the connection between participants' beliefs about mentoring conversations and their actual realization in mentoring conversations. The study revealed that relationships between 'the expressed' and 'the realized' in mentoring conversations are complex, multifaceted, and of a predominantly loosely related nature. In the United States, Urzúa and Vásquez (2008) examined teacher mentoring meetings as spaces for novice teachers to verbalize plans, predict outcomes, consider possibilities, and reflect on their evolving pedagogical practices. Focusing on mentor teachers' use of

supervisory skills during mentoring conversations, Hennissen, Crasborn, Brouwer, Korthagen, and Bergen's (2010) two consecutive studies in the Netherlands used stimulated recall to categorize the contents of interactive cognitions, before and after training in supervisory skills. The results show that after training, mentor teachers demonstrated an increased awareness of their use of supervisory skills, while emphasizing pupil learning during mentoring dialogues (Seaman, Sweeny, Meadows, & Sweeny, 1997).

Even though much has been done in studying this theme, it seems that, as Little (1990) suggests, we still are still challenged to provide answers to the questions: "How do beginning teachers interpret the responses mentors give?" and "how can beginning teachers detect the knowledge that informs mentors' comments?" (p. 318).

Mentoring Through Technology

From the 2000 onwards, a substantial group of studies focuses on mentors' performance and pedagogy. A small but emergent sub-theme is mentoring through technology. Drawing on Shulman's model, Margerum-Leys and Marx (2004) investigate how knowledge is acquired, shared, and used by both student teachers and mentors in mentoring interactions for teaching through technology, in the United States. In the case reported in this study, a student teacher served as a source of content knowledge for her mentor teacher, bringing to the site knowledge of the existence of various technologically infused activities. Focusing on e-mentoring Hunt, Powell, Little, and Mike (2013) a mixed methods study investigated special education novice teachers' competence development as a result of the induction e-mentoring pilot programme in the United States. The study revealed that there were statistically significant differences in levels of basic and advanced teacher preparedness as well as knowledge of standards and law after participation in e-mentoring. However, e-mentoring did not improve teachers' knowledge of individualized education plans or of how to encourage advanced levels of student thinking. Still in the context of mentoring through technology but with a particular focus on math education in Israel, Swan and Dixon (2006) explored the influence of a mentor-supported model of technology training on mathematics teachers' attitudes and use of technology in the classroom. The findings show increased level of accommodation, interest, comfort and confidence with the use of technology in their practice. Focusing on learning to mentor through on line programmes in Canada, Clarke et al. (2012) reports on the development and refinement of an online inventory to help cooperating teachers focus on selected dimensions of their practice. It should be noted that most studies discuss conditions that support technologically-enhanced mentored learning. The most recurrent ones are time for training, planning, and collaboration.

Mentor Performance and Pedagogy: Implications for Policy and Practice

The relatively broad literature on mentor pedagogy and performance outlines important elements which, taken together, can propose a content base for describing successful mentoring pedagogies. These are: Pedagogies that offer the right dose of challenge and risk-taking within supportive school environments; clear induction pedagogies that integrate the school ethos; pedagogies of lesson study that assist teachers in exploring their teaching collaboratively; and utilizing reflective questioning strategies of clarifying and probing responses while taking a non-judgmental stance. Successful mentoring pedagogies also speak to issues of ethics, to student-centeredness, to constructive feedback and to careful and empathetic listening with the right combination between flexibility, demand and support. They also embrace the use of multiple strategies linked to specific pedagogical knowledge practices such as planning and co-planning for teaching, verbal reflection on planning, providing concrete examples of teacher planning and working with technologically enhanced pedagogies that foster collaboration.

The Context of Mentoring: Contexts, Policy and Programmes

This last section focuses on the study of mentoring as related to contextual factors, to policy issues and to programmatic aspects. Although the importance of attending to context is addressed in almost all the studies reviewed, it was surprising to discover that actually so few actually foreground this theme as a topic for research.

Mentoring Programmes

The [mentor program] may be described as an effort to retain skillful teachers and to improve teaching by promoting direct, rigorous, and consequential activities and relationships between mentors and other teachers. The [studies] asked whether and how district efforts to implement the mentor program promoted those activities and relations. (Shulman et al., 1985, p. 2, in Little, 1990)

The articles in this category appear from the late 1990s onwards. A group of articles analyzes existing mentoring programmes in an effort to suggest unifying frameworks for classifying and mapping mentoring programmes. Gay and Stephenson (1998) classify mentoring programmes to suggest a template for the identification of different mentoring projects in England. In the United States context, Kajs (2002) describes a situational mentoring framework for developing a successful mentoring programme, focusing on four major components of any mentoring process: mentor selection, mentor and novice teacher preparation, support teams and accountability. Wang and Odell (2002) analyze the literature on mentored learning to teach in the context of the standards reform movement. The analysis suggests that the assumptions underlying mentoring programmes are not always focused on

standards but on emotional and technical support. It also suggests that mentoring practices increase novices' retention but do not always support their learning to teach in reform-minded ways. Grossman and Davis (2012) review of research suggests that essential conditions for successful and effective mentoring programmes need to consider high-quality mentors, to focus on improving instruction, and on the necessary allocated time. School administrators are seen to play a key role in structuring effective mentoring programmes and in creating a school context for developing such programmes. To be effective, the study concludes, mentors require training and ongoing support to develop specific skills in assisting new teachers. Furthermore, they point out, when new teachers are paired with highly trained mentors, the pace of new teacher learning increases.

Drawing on a survey and interview data from 57 first-year mathematics teachers from 11 districts in the United States, Desimone et al. (2014) focuses on differences in the characteristics of formal and informal mentoring. Their findings suggest that informal and formal mentors often exhibit similar functions and often complement each other in supporting new teachers. Based on these findings, they identify a set of policy recommendations to improve new teacher supports. Focusing mentoring models geared specifically to connect between theory and practice, Tang and Choi (2005) study two mentor preparation programmes in Hong Kong. The study addresses how the theory-practice connection model contributes to the construction of professional knowledge in mentoring and the development of mentoring practices in schools. It was found that the organization of curriculum components, such as coursework and structured practical work in mentoring, facilitated the connection of theory and practice during mentoring. Mentor school teachers also exhibited developed competence in mentoring as they integrated research-based knowledge and practical knowledge in their work with student teachers. Rodgers and Keil (2007) describes the successful undertaking of bottom-up reforms within larger systemic constraints, in the context of an alternative student teaching supervision model in the United States.

Mentoring Within and Across Contexts

Investigating mentoring contexts as a main research focus, Wang (2001) explores the relationship between contexts of mentoring and mentoring practice for 23 United States, United Kingdom, and Chinese mentor teachers. Through comparative analysis, it suggests that mentoring practices show greater differences across programmes and countries than within, even in cases where mentors are practicing a kind of teaching as expected by education reformers. The authors identify three instructional contexts in each setting that shape such differences: structure of school curriculum and assessment, organization of teaching and mentoring, and student population. Their findings illuminate on the influences of instructional contexts on mentoring and the kinds of learning opportunities that mentoring creates for novice teachers in different contexts. Studying the context of partnerships in England, Brookes (2005) considers the strengths and weaknesses of a graduate teacher

programme aimed to strengthen the existing partnerships by improving the quality of school-based tutor training and continuous professional development of the staff. Three articles deal specifically with conceptualizations of mentoring contexts. In a recent review of mentoring as the mediation of professional learning Orland-Barak (2014) presents a synthesis of studies published in *Teaching and Teacher Education* on mediation in mentoring. The three distinctive domains identified for the 31 studies (mentors' performance and behaviors, mentors' reasoning, beliefs and identity formation and the place of culture, context and discourse in mentoring) run parallel and cross geographical areas, periods, and contexts of pre-service and in-service education.

Mentoring and Policy

Focusing on political aspects of policymaking, Hamel and Jaasko-Fisher (2011) argues that mentoring reflects a form of hidden labor within pre-service teacher education. Drawing on discussions from an American mentor teacher advisory council, the article surfaces marginalized aspects of mentors' work. The findings reveal problems of initiative, complications in determining teaching opportunities, and dilemmas of positions adopted by mentors during transitions in authority. Colley (2002) discussed mentoring as a favored policy initiative in a number of countries. The article discusses mentoring policy both for professional development but also for addressing social exclusion. Analyzing the literature from a feminist deconstructionist perspective, the review identifies four distinct historical stages in mentoring s development, suggesting that official concepts of mentoring have shifted from dominant groupings reproducing their own power, to subordinate groupings reproducing their own oppression. Exploring the concept of 'mandated mentoring' in the United States, Mullen (2011) demonstrates how mentoring can be used as a vehicle for practical change and offers possible solutions to preferable mentoring in a public school setting. In the context of Scottish initial teacher training, Cameron-Jones and O'Hara (1995) describe a case study that gives evidence to outcomes of a national policy change regarding expanding schools' responsibility and increasing working demands from mentors.

The Context of Mentoring: Implications for Policy and Practice

The few studies identified on connections between mentoring and contextual factors (such as policy issues and programmatic aspects of a particular setting) all underscore the necessity to attend to context when thinking about effective and successful mentoring practices. This is also a major challenge for future study and conceptualization of the differences between mentoring student teachers in pre-service education and novices and experienced teachers at in-service levels. In the context of pre-service education, the few studies in this area suggest that mentoring practices increase novices' retention but do not always support their learning to teach in

reform-minded ways, due to a lack of attention to how conditions of the context shape their learning. Furthermore, variation across mentoring practices seems to be shaped by three predominant instructional contexts: Structure of the school curriculum and assessment, organization of teaching and mentoring, and student population.

Discussion

Major Shifts and Trends in the Literature

From a developmental perspective, and although prevalent themes keep recurring despite a specific, predominant focus at a particular point in time, studies on mentoring can be summarized as follows.

The 1990s focused mostly on strategies, training on practical skills and competencies, designing induction programmes, ways of assessing mentored learning, observing and supervising teaching activities, assistance through scaffolding subject matter teaching and learning, formal and informal contexts of assistance, and collaboration that occurs in dyadic interactions (Daloz, 1983; Tomlinson, 1995; Wilkin, 1992; Yeomans & Sampson, 1994). From the mid-1990s, there is a surge of publications that emphasize the value of collaborative professional learning for the enhancement of reflective practice, for developing trusting and culturally sensitive relationships, for engaging in team and co-teaching, for creating partnerships, and for developing shared activity (Achinstein & Athanases, 2006; Kerry & Mayes, 1995; Mullen, 1997; Mullen & Lick, 1999; Shulman & Sato, 2006). Important studies focusing on the disciplinary aspects of mentoring, also developed during this period to extend understandings of how subject matter dialogue can assist prospective teachers in scaffolding their learning (Athanases & Achinstein, 2003; Ball, 2000; Edwards & Collison, 1996; Grossman, 1991; Norman & Feiman-Nemser, 2005; Rodgers, 2001). There is also substantial study on how mentors and teacher educators are challenged to use their knowledge of teaching and educational experience to mediate learning 'here and now' in specific situations (Berry, 2009; Koster, Brekelmans, Korthagen, & Wubbels, 2005), or what is referred to as adaptive expertise (Berliner, 2001) and improvisation in mentoring (Orland-Barak, 2010). The last decade of research on mentoring has also gradually become more attentive to dimensions of the practice that pertain to issues of diversity, cultural sensitivity, context and power relations (Kochan & Pascarelli, 2003; Mullen, 1997). There is a small but growing body of publications that attends to ethical and moral considerations and dilemmas, tensions between individual needs and the needs of the system, the place of advanced technology and its ethical implications, and the growing recognition of mentors' formal preparation, particularly within academic learning communities of practice (Craig & Deretchin, 2009; Kochan & Pascarelli, 2003; Miller-Marsh, 2002; Mullen & Lick, 1999; Orland-Barak, 2010; Wang, 2001) (Table 18.3).

Table 18.3 Developmental shifts in the study of mentoring

Early 1990s onward	Mid 1990s onward	Last decade
Mentoring strategies	Collaborative professional learning for the enhancement of reflective practice	Issues of diversity, cultural sensitivity, context and power relations in mentoring
Training on practical skills and competencies	Developing trusting and culturally sensitive relationships	Ethical and moral considerations and dilemmas in mentoring
Designing induction programmes	Engaging in team and co-teaching,	The use of advanced technology
Ways of assessing mentored learning	Creating partnerships, and developing shared activity	Mentors' formal preparation
Observing and supervising teaching activities	Subject matter dialogue to assist scaffolding student teachers' learning	
Assistance through scaffolding subject matter teaching and learning		
Formal and informal contexts of assistance		
Collaboration in dyadic interactions		

Towards Mentoring as a Professional Practice

The shifts and developments in the study of mentoring from the last two decades of the twentieth century and into the sprouts of the twenty-first century underscore its growing professional character, reflecting the emergent 'bigger picture' of clinical practices striving to become recognized as professional practices (Orland-Barak, 2010).

The shifts identified in the previous section suggest a recognition of mentoring as a practice that attends to various measurements of professionalism, such as control of entry into the profession (see sections on the place of context in mentor roles, mentoring preparation, and Learning to mentor), control over working conditions (see sections on conditions that support mentees' learning and on mentoring programmes and policy), alignment between technical aspects of the practice and the social environment in which the practice is interpreted and understood (see sections on mentoring within and across contexts and on the place of context in mentor roles), and consistency in identifying, interpreting and acting on a set of problems (see sections on managing conflicts and barriers and on relationships and mediation) (Glazer, 2008). This implies a growing recognition of the role of the mentor as a professional role that is formally learned (see sections on becoming a mentor: Professional learning and knowledge development), that can be distinguished by its unique competencies and skills (Murray & Male, 2005) and that develops within complex interpersonal and social professional webs (Achinstein & Athanases, 2006; Little, 1990) (see sections on mentoring relationships). Mentors as profes-

sionals are, then, challenged into functioning in critical and moral ways, considering their decisions and subsequent actions in terms of dilemmas that carry moral values (see the section on managing conflicts and barriers). Having said that, a close analysis of the literature at the start of the twenty-first century does not point to drastic or rapid changes towards such a shift.

The Need for Interconnectedness: Towards More Integrative Research Agendas Across Contexts and Settings

The studies reviewed point to a stated recognition of the multiple and varied roles, functions, relationships and outcomes called for in different mentoring interactions and contexts. Said that, most studies focus on local, national contexts in a particular mentoring setting, usually adhering to a discrete domain and mostly relying on case study methodology. Thus, the field is still challenged to create methodological and conceptual connections between the fragmented and discrete pieces, towards a more integrative, conceptually grounded research agenda across contexts and settings. Such a direction that examines how different strands of published studies complement each other can be potentially conducive to better understanding the richness and complexity of mentoring interactions. Specifically, this would imply, for example, juxtaposing competing research lenses to address the same core issues, while exposing complementary, competing and conflicting views. For example, as suggested in a recent synthesis of the literature, evidence grounded in studies that focus on descriptions and interpretations of mentors' thinking processes and identity formation can be juxtaposed with evidence from studies on mentors' performance and behavior (Orland-Barak, 2014). Other lines of interconnection could be for example, examining how role formation and identity connect with knowledge and communicative skills acquisition and development; drawing on findings on the effect of the programme context on mentors' performance and examining this connection empirically in that same context; or examining the specific skills that mentoring programmes promote and how these connect to policy standards and models preferred. The question of how mentoring affects student teacher behavior also deserves more in-depth consideration, as well as how mentored learning affects pupils' learning in class. These two aspects, what mentees learn and what pupils learn from mentoring are loosely represented in the reviewed literature. Creating methodological and conceptual interconnections between the different thematic domains identified in this review allows for elucidating links between internal processes of reasoning and identity formation and external, contextual factors influencing behavior and performance.

Examining mentors' beliefs, knowledge and enacted practices from the above interconnected perspectives has begun to emerge in recent (although still limited) studies (Achinstein & Athanases, 2005; Athanases & Martin, 2006; Cochran-Smith, 2003; Orland-Barak, 2010) (see sections on mentors' knowledge, and on doing

Table 18.4 Mentoring as a professional practice

Criteria in professionalism	Related themes in the review
Control of entry into the profession	The place of context in mentor roles mentoring preparation Learning to mentor
Control over working conditions	Conditions that support mentees' learning mentoring programmes Mentoring and policy
Alignment between technical aspects of the practice and the social environment in which the practice is interpreted and understood	Mentoring within and across contexts The place of context in mentor roles
Consistency in identifying, interpreting and acting on a set of problems	Managing conflicts and barriers Relationships and mediation
A professional role that is formally learned	Mentors' knowledge; Learning to mentor; Contexts for mentoring preparation and development
Complex interpersonal and social professional webs	Mentoring relationships
Carry moral values	Managing conflicts and barriers

mentoring: Mentor performance and pedagogy). For example, these studies examine how mentoring practices are conceived and enacted within complex interactional intersections between personal theories, knowledge and institutional constraints, in different cultural and social contexts (Devos, 2010; Hansen & Simonsen, 2001) (see sections on mentoring relationships, and on mentoring conversations). As Cochran-Smith et al. (2012) contend there is a need to develop more sophisticated interconnected analytical frameworks that reflect complex questions in education such as how teacher education systems respond to policy environments; how initial conditions and interactions within systems mediate teacher candidates' practices and students' learning; or how teacher education systems intersect with gender, race and class inequalities. Their contention definitely holds true for the study of mentoring, a central domain within the teacher education field. The new suggested line of research attends to the call for creating innovative channels of communication that would encourage fields to 'talk to one another', hence, strengthening the 'weak link' of fragmentation in educational research, alluded to at the outset of this review (Table 18.4).

Joining Forces

This review has identified six major domains of study in the literature of Mentoring: (1) Being a mentor: Mentoring roles and functions; (2) Mentoring relationships; (3) Outcomes of mentored learning; (4) Becoming a Mentor: Professional learning and knowledge development; (5) Doing Mentoring: Mentor performance and pedagogy; and, (6) The Context of Mentoring: Contexts, policy and programmes. Although often interconnected, the majority of studies can be positioned in either of these six core thematic categories. Conceptually and methodologically, then, there is still much to be done. The review foregrounds the need for different theoretical frameworks and research strands to join forces in order to attend to the complexity and versatility of the work of mentors. This implies promoting cross-national and international research cohorts that will address the same core questions in different contexts, settings and countries. Notice that out of the 300 studies researched in this review, only one presents international collaborations involving a cohort of different countries (Wang, 2001). Being this review part of the *International Handbook of Research in Teacher Education*, such a missing link should be of particular concern for field in an era of globalization, internationalization and immigration.

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