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Research on mentor education for mentors of newly qualified teachers: A qualitative meta-synthesis



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HIGHLIGHTS

- A qualitative meta-synthesis of research on education for mentors of new teachers.
- 10 studies met the criteria for full inclusion and were synthesised.
- Three overarching dimensions were found as a final synthesis.
- A systematic, long-term and research-informed mentor education is stressed.

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ABSTRACT

The aim of this meta-synthesis is to deepen the understanding and knowledge of qualitative research focusing on education for mentors of newly qualified teachers. Altogether, 10 studies were included and synthesised. Four common themes emerged in the initial analysis: *School and mentoring context, Theory and practice, Reflection and critical thinking* and *Relationships*. Furthermore, three overarching dimensions were found as a final synthesis guiding the further development of mentor education: 1) *Contextual dimensions*, 2) *Theoretical-analytical dimensions*, and 3) *Relational dimensions*. The synthesis stresses the importance of a systematic, long-term and research-informed mentor education that develops mentors' (self-)understanding of teaching and mentoring.

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1. Introduction

In educational research there has been a long standing focus on newly qualified teachers (NQTs). Challenges have been identified that underpin arguments as to why mentoring may be justified or even important (Aspfors & Bondas, 2013; European Commission, 2010; Fletcher & Mullen, 2012). While much is known about mentoring, relatively little is known about mentors' professional knowledge and needs (Hobson, Ashby, Malderez, & Tomlinson, 2009), and even less is known about their professional development, how mentors are educated, and how their skills and knowledge develop during mentor education (Bullough, 2012). In

this context, it has been claimed that the preparation of mentors has to be a priority for policymakers, teacher educators and researchers (Hobson et al., 2009). However, it is surprising that some countries or states with well-established mentoring programmes do not seem to have any systematised mentor education. For instance, New Zealand has a long tradition of induction and mentoring for NQTs, but has no mandatory mentor education. Training is provided as professional development, often by professional or academic consultants or as university courses. The same is offered in Scotland, where training delivered by education authorities is often related to documentation, rather than the mentoring process. Similar, in Japan the induction programme 'Shoninsha-kenshu' is mandatory, but most mentors are not trained (Asada, 2012). Thus, as research on mentor education is scant, the aim of this qualitative meta-synthesis is to deepen the understanding and knowledge of research focusing on education for mentors of NQTs (Noblit & Hare, 1988; Sandelowski & Barroso, 2007).

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In doing this our focus is not on the literature that simply describes how mentor education is provided, its content and structure etc., but on global-wide studies with an explicit research focus on mentor education. The following questions are addressed: What does the qualitative research on mentor education focus on? What do the studies contribute to the further development of mentor education? By addressing these questions, the ambition is that this synthesis will offer a basis for further studies of mentor education.

Mentor education cannot be studied in full without problematising how mentoring and mentor education are understood and defined. The problem is that there is no universal definition of mentoring (Gold, 1996; Mullen, 2012), and that mentoring is a contested practice (Kemmis, Heikkinen, Fransson, Aspfors, & Edwards-Groves, 2014) in which different concepts, such as mentoring, supervision, coaching etc., are used (cf. Sundli, 2007). Mullen (2012) offers an illustrative quote: "While some theorists think of coaching as a type of mentoring, others see the exact reverse — that is, mentoring as a type of coaching" (p. 9). Mentoring can be performed in many contexts, be based on a variety of purposes and theoretical approaches (Dominguez & Hager, 2013; Hobson et al., 2009) and be performed under different circumstances in a variety of ways with different duration and intensity (Bullough, 2012; Ingersoll & Strong, 2011; Strong & Baron, 2004).

For instance, in some research studies mentoring and mentor education are discussed in general terms and are often related to different kinds of contexts or experiences in different professions (Garvey & Westlander, 2013). When it comes to teachers, the terms 'mentor' and 'mentor education' are sometimes used in the context of 'pre-service education' and focus on initial teacher training. student teachers and their mentors (Ballantyne & Mylonas, 1991; Hudson, 2014; Sundli, 2007). In research on mentoring or mentor education, a clear line is seldom drawn between 'mentoring' and mentor preparation with regard to initial teacher education and mentoring and the training of mentors for NQTs. However, in this article, we base our overview on the literature and research that focuses on mentoring and mentor education for mentors of NOTs. We do this because we consider 'mentoring' in initial teacher education and for NQTs to be two different practices with (somewhat) different logics, contexts, relations and effects. A second reason is that the majority of research seems to focus on the professional development of 'mentors' for student teachers in initial teacher education (cf. Hobson et al., 2009; Hudson, 2013; 2014), rather than considering the professional development of mentors for NQTs.

In the article we regard mentoring as an activity, a process and a long-term relationship between an experienced teacher (mentor) and a less experienced NQT that is primarily designed to support the NTQ's learning, professional development and well-being and to facilitate their induction into the culture of teaching and the local school context (cf. Hobson et al., 2009). We define *mentor education* as: a) formal courses or education involving universities, teacher education institutions or researchers, b) professional development activities, such as coaching or reflective seminars for mentors, and c) action research projects involving mentors and researchers.

We begin with an overview of previous research in the field of mentor preparation before describing the methods and criteria for this qualitative meta-synthesis and its results.

2. The professional development of mentors - informal and educative practices

2.1. Focus on mentoring for newly qualified teachers

The professional development of mentors embraces the transition from experienced teacher to the position of mentor and having to master teaching practices and mentoring practice, which can be seen as two separate practices (Orland-Barak, 2001). These transitional processes imply knowledge and skills to master the processes of communication, learning and identity formation, as well as the micro-political manoeuvring that is necessary in both practices (Achinstein, 2006). In the mentoring practice, these skills are manifested and exposed in the processes of *mentoring*. In many ways the professional development that is necessary to become a mentor is similar to the developmental stages that new teachers experience in their first years of teaching (Orland, 2001).

There seems to be at least two main approaches in research when conceptualising the professional development of mentors for NQTs. The first approach focuses on mentors' informal learning and interactions with mentees. The second focus on formal courses or programmes or on more informal but still organised opportunities for professional development while serving as mentors, for instance via coaching or reflective seminars. These two approaches are highlighted below.

2.2. Mentors' professional development and informal learning

Mentors' professional knowledge has been found to be highly practice-oriented and emanates to a great extent from mentors' own professional experiences and preferences (Clarke, Killeavy, & Moloney, 2013; Ulvik & Sunde, 2013) and instructional contexts have been found to have a strong influence on mentors' conceptions and practices of mentoring. This is clearly illustrated in Wang's (2001) study of mentors in China, England and United States.

The informal learning of mentors is well documented in terms of how the mentors themselves benefit and learn from mentoring (Patrick, Elliot, Hulme, & McPhee, 2010). According to Hobson et al. (2009), the largest body of research evidence seems to deal with mentors' critical reflections and mentors' own way of acting or understanding their own teaching practices (Abell, Dillon, Hopkins, McInerney, & O'Brien, 1995; Clarke et al., 2013; Patrick et al., 2010). It is also highlighted that mentors can learn current knowledge or new perspectives from the NOTs. For instance, in a Norwegian study of new upper secondary teachers and their mentors, Ulvik and Langørgen (2012) find that mentors learn from NQTs about issues such as youth culture, ICT, gain up-to-date-knowledge about curriculum and subject matter, and listen to the alternative perspectives of NQTs. In their study of 25 mentors in Missouri, Gilles and Wilson (2004) find that mentors learn how to work with adults, how to 'read situations' and their mentees, when and how to challenge mentees' thinking, and how to make tacit expertise visible and conscious. It is concluded that a lot of mentoring is learned by engaging in it, and that it is a learning process that takes time, i.e. years rather than months (cf. Koballa, Kittleson, Bradbury, & Dias, 2010). In another study, Orland-Barak (2001) uncovers the learning and evolving competence of two Israeli mentors as they develop their competence over time, partly by contrasting the practice of mentoring and the practice of teaching children. In a similar study from New Zealand, Langdon (2014) shows how mentors learn and develop their mentoring, for instance by changing their conversational strategies to more co-constructivist approaches, or by viewing themselves more as "learners" than "problem-solvers" or "tellers".

Mentors' professional development has also been found to be connected to the professional development of the mentors' own teaching. In a study from Ireland, Clarke et al. (2013) found that mentors regarded the acquisition and improvement of their own teaching skills to be of importance in their role as mentors. Reflecting on their own teaching and reflecting on and sharing experiences with colleagues was also found to benefit mentoring. Thus, it would seem that the factors or activities in the mentor's

daily work that enhance their capacity to analyse their own teaching are also important sources of knowledge in their role as mentors.

2.3. Formalisation of mentors' professional development

In research it is sometimes suggested that mentors for NOTs need some kind of preparation, education or professional development. In some studies these suggestions stem from research overviews (Tang, 2012) or from empirical research, e.g. on mentoring processes, skills or learning (Clarke et al., 2013; Desimone et al., 2014; Jones, 2009). For instance, based on experiences of formal induction programmes in Ontario, Canada, Glassford and Salinitri (2007) conclude that mentor training is a key contributor to the success of mentoring programmes. In other cases, the suggestions resulting from research informed the development of induction and mentoring schemes, as in Ibrahim's study (2012) of important factors for the creation of a possible future mentoring scheme in the United Arab Emirates. Despite such suggestions, it is notable that mentor education has hitherto not been regarded as being sufficiently in focus in research (Iucu & Stingu, 2013; Wang & Odell, 2002).

When it comes to the formal courses for mentors or opportunities for professional development – the research is sparser and knowledge about mentors' professional development and learning much weaker (cf. Hobson et al., 2009). Some research is available, however. From an extensive research overview focusing on mentoring for NOTs and for student teachers in initial teacher education. Wang and Odell (2002) identify three basic models for mentoring preparation: the knowledge transmission model, the theory-and-practice connection model and the collaborative inquiry model. These models are based on different assumptions about how one learns to be a mentor. Other researchers, for example Tang and Choi (2005), analysed and compared two different mentoring courses in Hong Kong and found that mentors developed a deeper understanding of the concept of mentoring and their competence in mentoring. Ulvik and Sunde (2013) came to similar conclusions in their Norwegian study of an ongoing mentor course for mentors of student teachers and NQTs. Here, the participants' understanding became more systematic, their knowledge became more grounded and their awareness of mentoring increased

Other research refers more indirectly to mentor education, e.g. the impact of mentor education or the extent to which the content, approaches or ideologies of the education can be traced in the mentoring. For instance, when investigating the effects of a structured mentoring education facilitated by the New Teacher Centre (NTC) in Oregon, in the United States, Menegat (2010) found indications that the interaction between mentor and mentee was framed by the content of the mentor training. In another study, also performed in the United States but this time on 46 mentor-mentee pairs, Evertson and Smithey (2000) compared the mentoring practices of 23 mentors who had been trained with 23 who had not been trained, and found that the trained mentors had better communication skills and were more likely to share their own experiences with the mentee. The mentees were also better able to follow instructions and establish more workable classroom routines than the mentees of mentors who not had received any training. In Evertson and Smithey's study (Evertson and Smithey, 2000), the mentor education was systematically used as a parameter. However, the extent to which mentoring education is used as a parameter in analysis in other research can be discussed. In a research overview of the effects of mentoring programmes, Waterman and He (2011) show that although most of the included articles reported that the mentors were trained, only in a few studies had data been collected about how the mentors valued the effects of the mentor education for their competence to perform mentoring. Regarding the impact of mentor education, Hobson et al. (2009, p. 212) state in their extensive research overview that the evidence base for claiming actual effects of mentor education is "generally rather sparse and underdeveloped". It is worth noting that in their overview, mentor education covered education for mentors of NQTs and/or for student teachers in initial teacher education.

However, the impact of mentor education could also be a result of its extent, focus and content. Courses can vary extensively, for example from 10 week courses in Norway giving 15 ECTS (Ulvik, 2014) to a few days of training in some parts of the United States (Carver & Feiman-Nemser, 2009) or as a local initiative in Queensland, Australia (Beutel & Spooner-Lane, 2009). Mixed models of education and support are also reported. Carver and Feiman-Nemser (2009) describe and analyse different approaches of mentor education in the states of Connecticut, California and Cincinnati, where for instance California has mandated mentor education followed by support while mentoring. The focus of the mentor education is also important. In the study the authors also found that as the main focus of a specific 2-day education was on teaching standards and supporting portfolio assessment, the observed mentors did not talk about or practise reflective conversation; something that the researchers regarded as important but was a missing element in the brief education. In an English study of the mentoring of maths and science teachers, Haggarty, Postlethwaite, Diment, and Ellins (2011) found similar challenges, namely that the mentor education seemed to focus more on organisational procedures and the requirements of the providing authority, the Training and Development Agency for Schools (TDA), than the complexities of the mentor's role or of learning to teach.

The quality and focus of the literature used in mentor education can also affect its impact. In a US context it has been claimed that a lot of the literature used for the professional development of mentors tends to have a technical approach, thus reducing mentoring to strategies and tips rather than acknowledging it as a complex and challenging practice (Achinstein & Athanases, 2006).

2.4. Mentoring a profession within the teaching profession?

It has been argued that mentoring can be seen as a specific profession within the teaching profession, at least from an Israeli (Orland-Barak, 2001) and a Norwegian perspective (Smith & Ulvik, 2014; Ulvik & Smith, 2011) on mentoring. The main argument for this is the specific competence that mentors need to acquire in order to mentor colleagues, which differs from 'regular teaching competencies'. However, being regarded as a profession requires other, more specific circumstances. According to the traditional definitions of profession, it implies identification with a 'mentor community' that has control over the knowledge base and the education, that the mentoring is performed in accordance with ethical codes, and that there is a general acceptance of professional claims (Evans, 2008; Evetts, 2006). In this context, teaching is traditionally seen as a semi-profession (Wise, 2005), although this traditional definition has also been criticised, for instance for having too much focus on structural issues that downplay the tasks and the content of the work (Abbott, 2010). In line with this argumentation, the present practice seems to be to acknowledge mentors' specific expertise and professionalism, rather than acknowledge mentorship as a profession in the traditional sense. However, regardless of whether or not any 'mentor community' can be seen as having control over its knowledge base and education, the very idea of regarding mentorship as a profession in its own right brings mentor education into focus. Before elaborating on our primary studies of mentor education used for this meta-synthesis, we will address some of the methodological issues.

3. Method

3.1. Qualitative meta-synthesis

In order to examine the research on mentor education for mentors of NOTs, a qualitative meta-synthesis was employed. Meta-synthesis aims at a more comprehensive view i.e. "theory development, higher level abstraction, and generalisability in order to make qualitative findings more accessible for application in practice" (Zimmer, 2006, p. 313). It is thus not an ordinary review of the research in the field, but a methodological approach to develop new knowledge based on an interpretive analysis of existing qualitative research findings. Here, the main idea is to bring together findings from primary studies and to use these as data in a "third level" interpretation. As such, meta-synthesis may present condensed knowledge and offer a fuller and/or new understanding of the mentor education phenomenon. Meta-synthesis is not the same as meta-analysis, which includes quantitative studies and typically operates in a positivist/post-positivist tradition (cf. Bondas, Hall, & Wikberg, 2013; Brown & Lan, 2015).

This meta-synthesis study draws on the methods of *meta-ethnography* (Noblit & Hare, 1988) and *qualitative research synthesis study* (Sandelowski & Barroso, 2007). The former pair used meta-synthesis within qualitative research in their meta-ethnographic study of education, which is the most common method for meta-synthesis. Although the methods are more commonly used today in nursing science, they have recently gained new ground within education (e.g. Brown & Lan, 2015; Hökkä & Eteläpelto, 2014).²

The present qualitative meta-synthesis study poses the following questions:

- Which common themes can be derived from the research on mentor education?
- What is the final synthesis that can guide the development of further mentor education?

3.2. Literature search

Systematic reviews of published research were conducted from December 2013 to May 2014, with a focus on the search terms mentor preparation/mentor education/mentoring education/mentor training/mentoring training or shorter forms of these with truncations, in: (a) databases of peer-reviewed articles, (b) five peer-reviewed journals. Reference lists and the names of the authors of the included articles were also searched.

The following databases were reviewed: Academic Search Premier (EBSCO), Ebrary, PsycArticles (Ovid), ScienceDirect (Elsevier), Primo Central (Ex Libris), Springer Link, Web of Science, ERIC (Proquest), Discovery, SAGE Premier, Google Scholar. A total of 3466 articles were identified in these databases. We also conducted a systematic review of the titles of all the articles published from 2000—May 2014 in the journals Mentoring & Tutoring: Learning in Partnership, Professional Development in Education, Teaching and Teacher Education, International Journal of Mentoring and Coaching in Education and Asia—Pacific Journal of Teacher Education. This complimentary strategy was used in order to validate the systematic review of the databases and the search terms used, and also to

determine whether other relevant articles were available. All the journals were chosen for their focus and for their representations of different parts of the world. No new article was found in this supplementary search.

3.3. Study selection process and criteria

The study selection process was conducted in two separate phases: the first was a review of titles and abstracts and the second a consideration of the full text articles. The two authors initially searched the above mentioned databases and listed the *titles and abstracts* of the articles found (in total 3466). As many of the databases generated similar results, some of the articles were duplicates. Both authors reviewed the lists individually to begin with and then discussed inclusion or exclusion on the basis of the following predetermined criteria:

A first criterion was that the articles reviewed needed to adhere to our definition of mentor education. In this article we have defined mentor education for mentors of newly qualified teachers as: a) formal courses or education involving universities, teacher education institutions or researchers, b) professional development activities, such as coaching or reflective seminars for mentors, and c) action research projects involving mentors and researchers. Studies addressing the effects of mentor education, if the research focused on the processes during the mentoring education, were included. However, we excluded research on mentoring practice that only claimed to study the effects of mentoring education and not the mentor education itself. Furthermore, studies focusing on perspectives other than mentor education for mentors of newly qualified teachers were excluded, such as mentor education for 'mentors' of student teachers in initial teacher education.

A second criterion was that the articles should be qualitative and empirical. A qualitative meta-synthesis was used as an approach and method to focus on the *original* qualitative primary studies. Quantitative articles, theoretical and discussion articles, reviews and editorials were therefore excluded. This is why, for instance, the excellent study of Wang and Odell (2002) was excluded from the meta-synthesis. A third criterion was the date of publication. The articles had to have been published before the end of 2013. A fourth criterion was peer-review. Articles guaranteed for quality by the journals' peer-review processes and a qualitative check by the authors of this article were included.

A fifth criterion was accessibility. Books and book chapters were excluded, partly because in the databases they were difficult to find and the full text difficult to access, partly because they have not always been subjected to the same rigorous peer review process as scientific articles. Dissertations were also excluded for similar reasons. Articles that were not possible to access in full text were similarly excluded.

This process led us to the second phase and a total of 35 potential articles, all of which were reviewed in *full text*. However, 25 of these were excluded due to either the wrong focus, for example on initial teacher education, on mentors' competences rather than mentor education, or on theoretical scenarios for mentor education. This left us with ten articles, which were finally included in the study (see Table 1). According to the recommendations of qualitative meta-synthesis, 10-12 studies are optimal (Bondas & Hall, 2007).

3.4. Summary and context of included articles

In this section, an overview of the included studies, data and background is provided. This is followed by a more detailed description of the analysis process of the meta-synthesis.

² A search in ERIC (EBSCO HOST) 2014-12-08 for "meta-synthesis" resulted in 17 hits, of which 8 related to education. A similar search in Medline rendered 280 hits relevant for the health-care sector.

 Table 1

 Studies focusing on mentor education included in the qualitative meta-synthesis.

Author, year of publication and country of study	Aim	Sample of informants	Data collection	Data analyses
Beutel and Spooner-Lane (2009), Australia	To report on the implementation of a mentoring development programme designed to build mentoring capacities in experienced teachers	8 female teachers, 1 male teacher	Questionnaires and subsequent focus group interviews	Iterative process: themes, communalities and overarching categories
Dallat and Moran (1998), Ireland	To describe an initiative in which the entire staff at a primary school participated in a programme of Mentorship Training	Whole school activity with 16 staff	Questionnaire with open and closed questions (professional portfolio of experience, personal journal/diary, peer observations, teaching video)	Not specified (action research approach)
Evertson and Smithey (2000), USA	To explore the efficacy of using a research-based mentoring programme to assist mentor teachers in supporting their protégés	46 protégé-mentor pairs (23 treatment; 23 comparison)	Ratings and narrative records from classroom observations, video of mentor- protégé conferences, documentation of goal-setting and weekly mentoring activities and ratings of students' classroom behaviour	Classroom Activity Record (CAR), Ratings of classroom instruction (RCI), video analysis with a 5-point Likert-type scale
Harrison et al. (2005), UK	To produce knowledge and action useful for Induction Tutors, and also to empower them through a process of constructing and using their own knowledge To influence teachers to change their own practices To make sense of processes within the mentor meetings	30 subject induction tutors	Questionnaire surveys at the start and end of year to NQTs; end-of-year telephone interviews with NQTs to follow up key themes; audit documents to target SITs at start and end of year; Professional Review Meetings (PRM) transcripts; and recordings of small and large group discussions with target SITs	Not specified (Participatory Action Research)
Koballa et al. (2010), USA	To understand the cultural tools used by science teachers when learning to mentor and how tool use may lead to the construction of new understandings about mentoring	37 experienced teachers enrolled in a federally funded science-specific mentor preparation programme	ē	Interpretative orientation (phenomenology): three stages of data analysis
McCrary and Mazur (2010), USA	To conceptualise the design of a narrative online simulation that implements user-selected multiple outcomes as decision points for reflection and dialogic learning for mentors and NQTs	6 mentors as critical feedback group	Notes and observations, group discussions	Conceptual analysis (narrative framework)
Sinclair (2003), Australia	To report on the experience of a university professor and her graduate students as they embarked on learning about the very personal domain of mentoring via face-to-face and online learning	7 practising teachers	Student online discussions, e-mail discussions, assignments and anonymous course evaluations	Analysis by adapting three dimensions of the Queensland School Reform Longitudinal Study classroom observation schedule
Stanulis and Ames (2009), USA	To examine how an experienced teacher learned to mentor as she attended ongoing professional development and worked with first- and second-year teachers across one school year as part of a university/district pilot induction partnership programme	1 experienced teacher learning to mentor	Observations (mentor study group, mentoring cycle, new teachers' classroom instruction), interviews, and mentor's reflection journal	Iterative process: initial codes, tentative themes, individual cases (action research)
Tang and Choi (2005), Hong Kong	To examine the theory-and-practice connection model in mentor preparation in the context of two mentor preparation programmes in Hong Kong	About 300 and 120 mentor trainees, respectively, attended the two programmes (2003–2004)	Document analysis (curriculum documents, reflective reports) and focus group interviews	Analysis from the perspective of professional knowledge construction
Ulvik and Sunde (2013), Norway	To gain a deeper understanding of mentor preparation, the focus is on a formal mentor education programme offered to teachers in secondary school at a university in Norway	31 teachers enrolled in the programme; 20 completed the course (17 were present at the last meeting)	Pre-course and post-course questionnaires (open-ended) and focus groups	Inductive approach (constructivistic/post-positivistic paradigm): to move from the particular to the general through codes and categories

Ten articles, published between 1998 and 2013 and representing different parts of the world, are included in the meta-synthesis. Four of the articles refer to the USA, two to Australia and one each to Hong Kong, UK, Ireland and Norway (see Table 1). The studies were all published in international journals covering education, learning, mentoring and professional development. The samples of the studies vary between 1 and 420 mentors and involve in total some 560 teachers participating in mentor education. Four of the studies involve secondary school teachers. All the studies are qualitative in nature and three explicitly mention action research as an approach. Different data collecting methods were used, the most common being questionnaire surveys (4), different forms of group discussions (4) (focus group interviews and critical feedback groups

or intervention meetings), as well as observations, individual interviews, document analysis, narrative simulations and journal/logs. The methods of analysis included different kinds of thematic analysis (iterative/inductive). Some of the studies either did not mention any specific analysis method or were very vague in their descriptions.

The ten included articles focus on different kinds of mentor education, e.g. university-based courses ranging from 30 h (Tang & Choi, 2005) to 15 ECTS (15 weeks) (Ulvik & Sunde, 2013), ongoing professional development in mentor groups meeting each month (Stanulis & Ames, 2009), online mentor courses (McCrary & Mazur, 2010; Sinclair, 2003), combinations of short courses, workshops and sustained support in internship while mentoring (Koballa et al.,

2010), action research projects (Harrison, Lawson, & Wortley, 2005), a four-day workshop (Evertson & Smithey, 2000), and school development projects (Beutel & Spooner-Lane, 2009; Dallat & Moran, 1998). One of the studies used a comparative approach when comparing mentors with formal mentor education to those without formalised mentoring preparation (Evertson & Smithey, 2000). In most cases the mentor education had only been operative for a short period and therefore had no sustained structure. Most of the education consisted of isolated events or courses that had been researched after being developed, implemented or run on a few occasions.

When reviewing the articles, three approaches to presenting the findings of the mentor education were revealed. One approach is to centre on the impact of the mentor education in focus (Dallat & Moran, 1998; Sinclair, 2003; Tang & Choi, 2005; Ulvik & Sunde, 2013). A second strategy is to discuss mentor education, its content, how participants perceive it and what impact it has in tight relation to mentoring practices (what mentors do). A result of this is that the mentoring practice is given space in text, while mentor education is given less space or is exposed more indirectly via the mentoring context (Beutel & Spooner-Lane, 2009; Evertson & Smithey, 2000; Koballa et al., 2010; Stanulis & Ames, 2009). A third approach is to have the main focus on the ideas behind or methods in the mentor education, as in McCrary and Mazur's (2010) study related to narrative simulation, or in Harrison et al's (2005) study related to action research. In this approach, the mentor education is somehow in the background.

3.5. Data analysis process

The partially overlapping six phases of the two combined methods of Noblit and Hare (1988) and Sandelowski and Barroso (2007) are presented below, with a description of how they are applied in the current meta-synthesis (cf. Bondas et al., 2013).

- Getting started conceiving the synthesis. The aim and research questions of this qualitative meta-synthesis study were discussed and formulated against the background of the limited previous research.
- Deciding what is relevant to the initial interest deciding the target of the study. The criteria for the literature search and the inclusion and exclusion criteria were set after careful consideration by the two authors.
- 3) Reading the studies appraising included reports. The identified studies were critically reviewed and the usefulness of the studies evaluated. The ten studies that were finally included in the meta-synthesis were repeatedly read and summarised (see Table 1).
- 4) Determine how different studies are related a targeted comparison. The results of the primary studies were analysed by adopting qualitative content analysis with the aid of NVivo10 software. More concretely, the analysis process consisted of three steps: open coding, categorisation and abstraction (cf. Elo & Kyngäs, 2008). The process started with a careful reading, followed by an inductive review process of the results of the included studies in which key metaphors, ideas and/or concepts were highlighted and coded as emerging themes (codes in NVivo). This initial and open coding process resulted in a large number of codes. Thereafter, a more systematic coding or categorisation was conducted. The pieces of data were compared for similarities and differences, and the codes categorised in a tree node system. In this way, codes having similar meanings were grouped into the same sub-category. Finally, the list of subcategories was further reduced by grouping them in higher order categories or main themes (see the four identified themes in

- the findings outlined in Section 4). In order to validate the analysis process the authors analysed the data separately: first in NVivo and then by discussing the codes and the categories. This enabled us to reach inter-rater agreement and led to more refined results.
- 5) Translating the studies into one another forming the qualitative meta-synthesis. Noblit and Hare (1988, p. 7) use the term "reciprocal translation" for the translation of findings into each other. This is an inductive and interpretive explanation that enables the uniqueness of the studies to be retained and a new whole of the parts created. After the preceding steps of a content analysis, in the form of the categorisation and abstraction of four main themes, the next step was to integrate the results. This meant an interpretive integration of the findings into a final synthesis. Here, the identified themes were interpreted and three concluding and overarching dimensions developed to represent our deepened and multi-dimensional understanding of research on mentor education. The dimensions are blended with a number of elements from the four different themes. While some of the themes are more notable in certain dimensions, the integration should be seen as a dynamic and flexible whole that hangs together. The intention of the synthesis is to raise the data to a more abstract level and to present a new whole that enables a refined understanding of research on mentor education in relation to previous research (see synthesis in Section 5).
- 6) Expressing and presenting the meta-synthesis. In this article the findings are presented in written form with quotations from the original studies (see Section 4) and the synthesis is presented in the form of three dimensions.

4. Findings

In the following we present the findings in relation to our first research question. The findings are organised into the following themes: *School and mentoring context, Theory and practice, Reflection and critical thinking* and finally *Relationships*. Quotations from the original studies are used as validation.

4.1. School and mentoring context

This theme focuses on how school and mentoring contexts are addressed in the findings in terms of practical and cultural arrangements. The school context in which the teachers work seems to be important for the mentor education in several ways. Support, such as the allocation of time, the employment of substitute teachers, payment for literature, the moral support of principals, colleagues etc. seems to vary in different contexts and studies (Beutel & Spooner-Lane, 2009; Harrison et al., 2005; McCrary & Mazur, 2010; Tang & Choi, 2005; Ulvik & Sunde, 2013). For instance, in Tang and Choi (2005), examples are given concerning the lack of support from the principal for the mentor to apply the knowledge from the mentor education in school.

Not all principals know the use of this course. I sent the handouts to my principal, but he did not respond to me at all... It is difficult for me to tell the principal about the need to assist beginning teachers. Only I know the mentoring course. Other senior teachers and teachers don't know this course at all... I benefited a lot from the course, but it will be difficult to apply what is learned in school. (Tang & Choi, 2005, p. 397)

One important issue seems to be the time and effort invested by the participants in the mentor education, given that their ordinary job also takes time and energy. Bad circumstances seem to negatively influence the options to utilise the full potential of the mentor education, and dropping out is often explained by these challenging circumstances (Harrison et al., 2005; Tang & Choi, 2005; Ulvik & Sunde, 2013). One reason that is often given for dropping out of mentor education is the workload:

I think it is an excellent idea and I benefited from the first meeting. However the pressures of my new role and my involvement in the KS2/3 transition project... means I have spread myself too thinly and something has to go. (Harrison et al., 2005, p. 93)

The mentors are not only concerned about the school context for their own successful participation in mentor education, but also for the success of mentoring in general as part of the overall school culture. For example, in Koballa et al., (2010, p. 1083) mentors raise doubts about the school cultures in which NQTs are working. New teachers are often assigned classes with challenging pupils that more experienced teachers do not want to teach, or are given extracurricular duties without being provided with the necessary training or support. This in turn also affects the quality of mentoring and the mentors' actual work:

It is now my contention that beginning teachers like Dave should be allowed to only teach for at least two years before being asked to assume extra curricular responsibilities. However, this is not the way the system works, and Dave is definitely struggling to fullfill his responsibilities. [...] Is it the responsibility of the mentor to "run interference" for this new teacher to help keep the administration from pressuring him to assume coaching responsibilities? (Koballa et al., 2010, p. 1083)

Thus, the mentors express a wish to develop mentoring in school, but at the same time experience resistance. These kinds of contextual issues and concerns, together with others, are discussed in the mentor education.

4.2. Theory and practice

This theme focuses on the theory and content of mentor education and how it relates to practice, and on how methodological approaches are used to bridge the experienced theory and practice gap.

Most important for utilising the full potential of mentor education seems to be the opportunities to connect and integrate 'theory' and 'practice'. That is, the extent to which it is possible to 'practise mentoring' during the course or already having these experiences and thus having something to relate the 'theory' and the 'practical doings' of the course to. Issues relating to theory and practice are, to varying extents, emphasised in all the ten articles studied. While this issue is explicitly stressed in some articles, the analysis also exposes these often implicitly expressed findings.

This theme comprises evidence as to how the content of mentor education could have theoretical and practical implications, e.g. in the form of suitable strategies, tools, theories and perspectives for performing and conceptualising mentoring. We find an example of tools in Koballa et al.'s (2010) study, in which an informant reflects on a tool for observation.

One of the best ideas that I thought I got from this summer was some of the methods that they gave us on when we go in to watch our protégés in the classroom, how to look for specific things ... to look at that data and learn how to analyze it and how much that piece of paper that is now your data really told you about how well the teacher was doing. (Koballa et al., 2010, p. 1081)

An example of how theories can facilitate new perspectives is provided in Ulvik and Sunde's (2013) study:

I have acquired a system of concepts that has made it possible to systematise and understand better what was previously based upon my own judgement and often vague considerations. (Ulvik & Sunde, 2013, p. 761)

Some of the researched mentor education seems to be specially designed for the opportunities to 'practise mentoring' while learning to mentor. For instance, in Harrison et al.'s (2005) study, a participatory action research approach is used, in which the participating mentors critically analyse their own mentoring processes. In Stanulis and Ames' (2009) study, the mentor is coached in context during the mentoring year, and in Dallat and Moran's (1998) study a whole school approach was designed to integrate mentors' learning with a review of their own teaching.

Challenges to transform the education to a mentoring practice and getting the theory-and-practice connection to work are also stressed in some studies (Tang & Choi, 2005; Ulvik & Sunde, 2013). For instance, Ulvik and Sunde (2013) find that mentors seem confident about their theoretical understanding of mentoring, but are less confident about using the knowledge in practice. Examples of their data reveal mentors' doubts: 'I know theoretically what I should do. Whether I do it in practice is something quite different' (Ulvik & Sunde, 2013, p. 764).

Even though many mentors value a formalised mentor education (Dallat & Moran, 1998; Ulvik & Sunde, 2013), the importance of practical experience is also acknowledged: "The most important asset that I have to offer the mentoring relationship is the wisdom and experience of 35 years of teaching science" (Koballa et al., 2010, p. 1080).

4.3. Reflection and critical thinking

This theme focuses on critical thinking and reflection and on the methodological approaches used in the education to enhance these aspects and to challenge taken for granted assumptions.

A common theme in all the ten articles is the intention of the mentor education to develop the mentor's analytical skills and enhance reflection. In most of the articles, evidence is given for such development. For instance, in Sinclair's (2003) analyses of written journals he finds via the reflective writing evidence that mentor education facilitates critical thinking.

... writing a reflective journal empowered me by forcing me [in]to articulating my knowledge, beliefs and understandings of professional readings and teaching experiences, as well as question and explain my learning intentions by thinking deeply about the ways of doing things and why. (Sinclair, 2003, p. 84)

Also in Koballa et al. (2010), case writing is used as a way of reflecting on the mentoring practice. In their study, Beutel and Spooner-Lane (2009) report that the most valuable aspect of the mentor education is that it prompts mentors to reflect on their mentoring relationships. Mentor education also seems to enhance a more reflective approach to effective teaching. As one mentor states in Dallat and Moran (1998, p. 39), "It (the programme) made me realise that we can teach all day but learning may not be taking place". In online courses, as in the narrative simulation developed by McCrary and Mazur (2010), mentors are required to reflect on and analyse how their decisions influence their own theories-in-action and professional reasoning in the classroom.

However, evidence that the mentor education actually enhances a mentor's analytical and reflective skills is mostly self-reported by mentors, although in some studies this is also analysed in contexts experienced by the researchers. For instance, Evertson & Smithey's (2000) study of mentors showed that educated mentors listened much more actively, asked more questions and used probes, described specific suggestions and conversations with their mentees about teaching problems and more frequently described their plans to observe the mentees. Studying and comparing the mentees' actions and the impact of these in teaching revealed that in many respects they were better able to arrange the physical settings of the classrooms, manage instructions and had more effective routines and procedures.

One approach that is used to enhance analytical skills is to organise opportunities for experienced-based learning. Some articles focus on mentoring education that is in principle organised in the teaching and mentoring practice, for instance as action research projects (Harrison et al., 2005) or whole school approaches (Dallat & Moran, 1998). Another example of a method promoting experienced-based learning is self-reflection over one's own teaching, often explicitly expressed as a method to become 'reflective practitioners' (Dallat & Moran, 1998) and thus being better prepared to analyse mentees. Another common method is the organisation of peer-observations or observations of videos of one's own or others' teaching. In some studies, this self-reflection also focuses on real mentoring situations (Evertson & Smithey, 2000; Koballa et al., 2010; Stanulis & Ames, 2009; Tang & Choi, 2005). For instance, Tang and Choi (2005) report on a mentor who after analysing the video-recorded post-lesson conference realised:

I should guide the mentee to think about the problem and the solution, rather than telling her directly. If I tell her directly, then it's not like lesson observation. It's like a teacher teaching a pupil, not an activity between the observer and the observed. (Tang & Choi, 2005, p. 395)

The articles include several examples of the importance of allowing new teachers to reflect. In the mentor education mentors experience the value of this and often change their mentoring practice as a result.

4.4. Relationships

This theme focuses on the relations between mentor students that are also related to mentor educators, colleagues and mentees.

An important finding and theme in the research is the relationships between mentors in the education and between mentors and the mentees in the mentoring. Trusting, comfortable, supportive and stimulating relations among participants in the mentor education are reported as crucial for professional learning. These aspects are implicitly stressed in some articles, whereas in others they are explicit. This is the case in Ulvik and Sunde (2013):

The programme has been very useful, and there are two elements that have contributed. One is what you at the faculty have done, like delivering good lectures and that kind of thing, the academic content. The other thing is something from which I've benefited enormously, namely the community with the other students. (Ulvik & Sunde, 2013, p. 763)

As the quote above expresses, it is the mentor students who are appreciated the most, while mentor educators are addressed more indirectly. The mentor education also seems to highlight the importance of adult relationships in general:

I think I've lost the human relationships in my job, in relation to teachers. It's all for the students and it's not about my relationships with teachers. [...] I'm going to make more of an effort to share my concerns, experience, support and make more of effort to connect socially in the staff room. (Beutel & Spooner-Lane, 2009, p. 354)

An example of when relationships are sometimes implicitly addressed is when communicative skills for mentors are in focus as a component of a mentor education or as skills acquired through the mentor education. Also, some research shows how relational processes develop, for instance from 'cautious' to more beneficial relationships, during the mentor education (Dallat & Moran, 1998; Stanulis & Ames, 2009).

The organisational form of the mentor education also addresses some of the challenges of creating good relationships among the participants. For instance, Sinclair (2003) — who studies a partly online based mentoring education — stresses the importance of developing a "mentoring relationship of trust and open communication" (p. 89) before expecting open and honest communication online.

Mentor education also appears to address the dilemmas and ethical issues experienced by mentors in their relations with mentees (Beutel & Spooner-Lane, 2009; Evertson & Smithey, 2000; Harrison et al., 2005; Sinclair, 2003). These include challenges regarding how to balance support and assessment, and dealing with confidentiality — all of which help to create a specialised knowledge base for mentors. The research reveals another relational challenge for mentors, namely to accept that the mentees may conduct their teaching in a different way than their mentors. We find examples of these tensions in the data from Beutel and Spooner-Lane (2009):

It was difficult separating myself, as a mentor, from the HOD role too. I found that really awkward, because on one or two occasions some of the ideas she was having for her class, which is under *my* banner, were inappropriate. (Beutel & Spooner-Lane, 2009, p. 356)

Other challenges can include coming up against new teachers' resistance. Examples of this can be found in Koballa et al. (2010, p. 1082): "My dilemma is about a teacher who does not want to be mentored". Another mentor continues: "I now find observing her very awkward, and she seems to be less receptive when I step into the mentoring role. She becomes defensive when I try to give her constructive feedback."

Several articles indicate that mentor education contributes to feelings of empathy for new teachers and a greater understanding for their well-being and needs (Beutel & Spooner-Lane, 2009; Dallat & Moran, 1998; Evertson & Smithey, 2000; Sinclair, 2003; Tang & Choi, 2005).

5. Synthesis

5.1. Three dimensions emerge

In this section we answer the second research question: "What is the final synthesis that can guide the development of further mentor education"? In so doing we will, on the basis of the results of the first research question and the four themes in Section 4, present three overarching dimensions as a final synthesis, which are essential when developing mentor education further. These are: 1) Contextual dimensions, 2) Theoretical-analytical dimensions and 3) Relational dimensions. These dimensions thus represent our

condensed, deepened and multi-dimensional understanding of qualitative research on mentor education based on the results of the primary studies. By using the concept 'dimensions', our intention is to raise the data to a more abstract level in relation to previous research and show that each dimension is made up of several layers, often with increased depth and complexity. They are therefore not fixed or static, but dynamic and flexible. The dimensions are presented below, accompanied by an interpretative text. At the same time, the presentation highlights the implications for developing mentor education.

5.2. Contextual dimensions

The first, contextual dimensions, implies the importance of context when implementing, developing and researching mentor education. The reviewed mentor education programmes vary depending on which context they are situated in, according to which meaning and understanding of mentoring there is and according to which approach the researchers/authors of the studies prefer. The design of the education varies from formal courses consisting of study points to more informal and flexible professional development programmes while the mentors practice mentoring. The results also reveal the influence of context on the individual mentors participating in the programmes, since the success rate depends on the resources and time allocated.

However, it is not only the local school context, with support and understanding from school leaders and colleagues or the context of the mentor education itself that is essential, but also the educational and cultural context of the country in which the mentor education is developed. These different layers of contexts are central components in the ongoing dialectic process of construction of everyday practices (Berger & Luckmann, 1967). Thus, the conditions for and the understanding of what mentoring and mentor education is or can be are construed or played out differently in different contextual layers. For instance, research shows that mentor education sometimes focuses more on the standards formulated in a policy context than on the complexities of the mentoring processes (Carver & Feiman-Nemser, 2009; Haggarty et al., 2011). In a similar way, Kemmis et al. (2014) argue that mentoring is a contested practice, in the sense that several contextual layers with different doings, sayings and relations complicate the construction of a 'cohesive wholeness' of how mentoring is understood and practised.

Given that educational- and mentoring systems are organised in different ways internationally, mentor education needs to be developed within the existing structures in order to work effectively as it is difficult to adopt a model for mentor education from another context. In cases of policy borrowing, processes of policy learning also have to be initiated so that the enactment of a model becomes culturally and contextually transformed "to fit" (Chakroun, 2010; Lingard, 2010).

Thus, the development of a mentor education needs to start with a review of contexts and current practices. Relevant questions to pose when developing mentor education relate to how the teacher education and following mentoring programme is organised. Is the induction of new teachers part of teacher education, or a separate support system organised in-service training? What is the role of a mentor - to assess and/or support the new teacher? Considering context might seem to be a matter of course, although in the analysis of the primary studies for this meta-synthesis, the only context to be mentioned is that at the local school level.

The educational context (at national level) is closely related to practical issues at a more local level, such as time and economic allowances. These need to be taken into account when developing mentor education. Does the national mentoring system help

experienced teachers to qualify as mentors? Do they have time for mentoring and mentor education in their working schedule, and do they get paid for their work? The results of the first research question suggest that the success of mentor education largely depends on the answers to these questions.

5.3. Theoretical-analytical dimensions

The second, theoretical-analytical dimensions, stresses the various layers of content and professional knowledge that a mentor education needs to address in terms of theoretical and practical components. In this, in-depth reflection promotes the identification and understanding of complexities, new perspectives and different layers of knowledge and is an analytical skill that facilitates professional development (Eraut, 1994; Korthagen & Vasalos, 2005; Schön, 1983, 1992). The previously discussed contextual dimensions strongly influence this and theoretical and analytical skills as well as reflection appear as key elements in all the studies. One reason for this is the critical role of the mentor, given that this is the person who will enhance the new teacher's analytical and reflective skills, develop their teaching and steer them away from old patterns. The process of becoming a mentor for NQTs is therefore of the utmost importance, since being a good teacher is not necessarily the same as being a good mentor (Bullough, 2012; Orland, 2001; Wang, 2001). Becoming a good mentor is a process that takes time, rather years than months (Gilles & Wilson, 2004; Koballa et al., 2010).

As the results bring forward, theory and practice are inseparable units, where one cannot be understood without the other. They are consequently two equal and supportive elements in the professional development of being and becoming a mentor. In all the analysed mentor education, efforts are made to expand and deepen the layers of knowledge and mentors' analytical skills. Theories about mentoring may enhance and conceptualise the mentors' practical understanding and experiences of mentoring, and mentoring in practice may concretise the theories. An optimal mentor education would therefore enable the mentors to practise mentoring in parallel to learning the more theoretical elements.

Thus, the findings relating to the first research question highlight the significance of mentors' critical thinking, reflective and analytical skills. Mentors should be stimulated to reflect on and analyse not only mentoring, but also teaching in general and new teachers' professional development in particular. In this way, mentors can develop their own teaching and analytical skills, at the same time as helping others to analyse and develop their teaching. Most importantly, they are prepared to challenge taken for granted assumptions. In the primary studies, several approaches for enhancing reflection and expanding new dimensions of knowledge emerge, such as action research and experienced based learning. As the results reveal, time for reflection is appreciated by the mentors, but is not often included in the mentor's timetable.

5.4. Relational dimensions

The third, *relational dimensions*, emphasises the importance of relationships when developing mentor education, not only in terms of the relational character of mentoring, but also in the process of becoming a mentor, where support from others and joint communication and learning are crucial. Relational dimensions therefore seem to be at the core of mentor education and are influenced and framed by the previously named dimensions.

Like the previous dimensions, this one also includes the different levels and depths of relationships. As the findings for the first research question suggest, mentors appreciate meeting their fellow mentor students during the education and the new teachers

they mentor. They seem to find themselves in these encounters, grasp their new roles as mentors and receive support in the sometimes vulnerable process of mentoring. They also position themselves and are positioned by others in both the mentor education and in school, for instance when it comes to power, knowledge, values, authority, educational stances etc. (Fransson & Grannäs, 2013). A mentor or new teacher could, for example, be involved in a micropolitical game (Achinstein, 2006) and be positioned as skilled, stubborn, impossible to co-operate with or as an advocate of collaborative inquiry model in mentoring, etc. Thus, positions and processes of positioning imply manoeuvring in a space of possible positions and relations (Massey, 2005). For instance, a mentor programme that assesses of NQTs in accordance with professional standards positions the mentors as both supporters and assessors, which adds additional layers to the relational dimensions than would be the case if the mentors simply facilitated learning (cf. Fransson, 2010). This, in turn, shapes the prerequisites for the focus in mentor education and implies new layers of content to be dealt with, relational and ethical issues, as well as standards for the assessment (Carver & Feiman-Nemser, 2009; Haggarty et al., 2011).

Another relational layer that is brought forward is the more indirect influence that mentors have on their colleagues and pupils at their own school (Beutel & Spooner-Lane, 2009). The knowledge from mentor education can be utilised in the daily interactions at school, and many mentors experience that they are generally more successful at dealing with relationships and communicating effectively after completing mentor education.

When developing mentor education it is therefore essential to organise enough space for the mentors to meet, interact, share their new experiences as mentors and build a culture of openness and trust. This can be done in several ways, and many of the primary studies propose different kinds of interactive group activities, working methods or discussion groups.

6. Conclusions

6.1. Dimensions in the research on mentor education for NQTs

In the same way as mentoring is a contested concept with multiple of meanings (Sundli, 2007), the results of this study show that mentor education is complex. We see the three previously discussed dimensions as mutually dependent. For example, the different layers of contexts are not there per se, but are analytically construed and possible to understand in different ways depending on the context, perspective or which theoretical analytical dimension is taken as the starting point. In a similar way, how one conceptualises relational aspects and positions is dependent on analytical depth. Recalling, for example, the three basic models for mentoring preparation identified by Wang and Odell (2002) – the knowledge transmission model, the theory-and-practice connection model, and the collaborative inquiry model - and acknowledging that these models are based on different assumptions about how one learns to be a mentor, results in efforts to construe different kinds of mentor-mentee relationships and also positions the construction of different kinds of mentoring context and mentor education. Hence, the three identified dimensions are dynamic, flexible, reciprocally dependent, construed and re-construed, and processes of power, negotiation, positioning, identity formation and manoeuvring operate within and between the dimensions.

6.2. Limitations

Some of the limitations of this study also need to be addressed. First, besides any possible limitations of the databases used, we

only searched for research written in English. This may imply a bias connected to language-spheres and traditions of how research is published. Second, the decision to only include research published in peer-reviewed research journals was meant to ensure scientific quality, although this have excluded research published in books and dissertations. Third, qualitative meta-synthesis is understood as a third-level interpretation (Zimmer, 2006), i.e. we interpret what is reported in the second-level interpretations of researchers' primary studies, which are often based on a first-level interpretation of informants. Thus, a synthesis has the advantage of offering a more comprehensive view, theory development and generalisability of qualitative research that can make the findings more practically applicable, but at the same time are not too far removed from the first- and second level interpretations. However, at the same time, qualitative meta-synthesis excludes quantitative studies, which in this case resulted in only 10 studies meeting the inclusion criteria. The number of included studies is nevertheless in line with meta-syntheses in general consisting of 10-12 studies (Bondas & Hall, 2007). Fourth, doing a meta-synthesis of primary articles with disparate designs, different styles of writing and variations in the extent of the presented results of mentoring education is an additional challenge.

6.3. Future research

Through this meta-synthesis we have come a few steps further in the process of capturing available qualitative research on mentor education and the knowledge that these, often small scale and disparate studies contribute. Even though surprisingly little research has been done on mentor education, mentoring is now an international trend (Sundli, 2007). As the field of education for mentors of NQTs is under-researched, we would like to suggest the need for more research. In particular, we find a specific need for research that moves away from small-scale case studies and takes a more holistic look at mentor education concerning overall contextual and systemic factors. For example, knowledge is needed about how educational ideologies and stances at national and cultural levels influence and operate within mentor education. If the knowledge base for mentor education is to be increased, there is a need for profound research on whether, and also how and why, mentoring NQTs differs from the mentoring of student teachers, and whether in the studied context there is a need for a separate mentor education or not. In some national and educational contexts these needs may be more obvious than in others. Another topic of research would be to study the effects of mentor education in practice. Here, the focus needs to be on how the education informs and influences mentoring, and how it affects new teachers' professional development and teaching. Evertson and Smithey's (2000) study in the context of the United States is in line with these suggestions. Another area that needs to be addressed is comparative studies within and between different international cultural contexts. Comparative perspectives are powerful in that they make us aware of taken for granted assumptions, help us to challenge our own perspectives, raise new questions and construct new ways of conceptualising and acting. However, in this kind of research one has to realise the challenges of policy borrowing and cultural transfer and acknowledge the importance of policy learning and enactment (cf. Chakroun, 2010).

6.4. Conclusions

In this qualitative meta-synthesis, a more comprehensive and less fragmented portrayal of the international body of knowledge informing the practice of mentor education is presented. Contextual, theoretical-analytical and relational dimensions has been

identified as being of importance for mentor education and some aspects of the depth, width and complexities of these dimensions and its layers have been highlighted. The synthesis stresses the importance of systematic mentor education that is researchinformed, long-term and develops mentors' (self-)understanding of teaching and mentoring. A mentor education that in different ways incorporates and pays attention to the different layers of contextual, theoretical-analytical and relational dimensions found. This means that mentor education should be well integrated into the educational context, well balanced with theoretical and practical components, include rich possibilities for interaction and critical reflection and prepare for an evidence-informed mentoring. Furthermore, such an education needs to be followed by continuous professional development, for example the mentoring of mentors, in the mentors' everyday lives. The meta-synthesis provides a foundation for future empirical work in the new field of research on mentor education.

References

- Abbott, A. (2010). Varieties of ignorance. American Sociologist, 41(2), 174-189.
- Abell, S. K., Dillon, D. R., Hopkins, C. J., McInerney, W. D., & O'Brien, D. G. (1995). "Somebody to count on": mentor/intern relationships in a beginning teacher internship program. *Teaching and Teacher Education*, 11(2), 173–188.
- Achinstein, B. (2006). New teacher and mentor political literacy: reading, navigating and transforming induction contexts. *Teachers and Teaching: Theory and Practice*, 12(2), 123–138.
- Achinstein, B., & Athanases, S. (2006). New visions for mentoring new teachers. In B. Achinstein, & S. Athanases (Eds.), *Mentors in the making. Developing new leaders for new teachers* (pp. 1–20). New York: Teachers College Press.
- Aspfors, J., & Bondas, T. (2013). Caring about caring: newly qualified teachers' experiences of their relationships within the school community. *Teachers and Teaching: Theory and Practice*, 19(3), 243–259. http://dx.doi.org/10.1080/13540602.2012.754158.
- Asada, T. (2012). How do mentees evaluate their mentor's competencies in Japanese induction program? Paper presented at The European Conference on Educational Research (ECER), 18—21 september 2012, Cadiz, Portugal.
- Ballantyne, R., & Mylonas, A. (1991). Improving student learning during 'remote' school-based teaching experience using flexible delivery of teacher mentor and student preparation programmes. Asia-Pacific Journal of Teacher Education, 29(3), 263–273.
- Berger, P. L., & Luckmann, T. (1967). The social construction of reality: A treatise in the sociology of knowledge. London: Allen Lane Penguin.
- Beutel, D., & Spooner-Lane, R. (2009). Building mentoring capacities in experienced teachers. *The International Journal of Learning*, 16(4), 351–360.
- Bondas, T., & Hall, E. O. C. (2007). A decade of metasynthesis research in health sciences: a meta-method study. *International Journal of Qualitative Studies on Health and Well-Being*, 2, 101–113.
- Bondas, T., Hall, E. O. C., & Wikberg, A. (2013). Metasynthesis in health care research. In P. Liamputtong (Ed.), Research methods in health-foundations for evidence-based practice (2nd). (pp. 280–294). Australia, Victoria: Oxford University Press.
- Brown, C. P., & Lan, Y.-C. (2015). A qualitative metasynthesis comparing U.S. teachers' conceptions of school readiness prior to and after the implementation of NCI.B. *Teaching and Teacher Education*. 45, 1–13.
- Bullough, R. V., Jr. (2012). Mentoring and new teacher induction in the United States: a review and analysis of current practices. *Mentoring & Tutoring: Partnership in Learning*, 20(1), 57–74. http://dx.doi.org/10.1080/13611267.2012.645600.
- Carver, C., & Feiman-Nemser, S. (2009). Using policy to improve teacher induction critical elements and missing pieces. *Educational Policy*, 23(2), 295–328.
- Chakroun, B. (2010). National qualification frameworks: from policy borrowing to policy learning. European Journal of Education, 45(2), 199–216.
- Clarke, M., Killeavy, M., & Moloney, A. (2013). The genesis of mentors' professional and personal knowledge about teaching: perspectives from the Republic of Ireland. European Journal of Teacher Education, 36(3), 364–375. http:// dx.doi.org/10.1080/02619768.2012.755513.
- Dallat, J., & Moran, A. (1998). Training and accrediting a school staff as mentors: experience of a primary school in Northern Ireland. *Mentoring & Tutoring: Partnership in Learning,* 6(1–2), 31–42.
- Desimone, L. M., Hochberg, E. D., Porter, A. C., Polikoff, M. S., Schwartz, R., & Johnson, L. J. (2014). Formal and informal mentoring: complementary, compensatory, or consistent? *Journal of Teacher Education*, 65(2), 88–110. http://dx.doi.org/10.1177/0022487113511643.
- Dominguez, N., & Hager, M. (2013). Mentoring frameworks: synthesis and critique. *International Journal of Mentoring and Coaching in Education*, *2*(3), 171–188.
- Elo, S., & Kyngäs, H. (2008). The qualitative content analysis process. *Journal of Advanced Nursing*, 62(1), 107–115.
- Eraut, M. (1994). Developing professional knowledge and competence. London: The Falmer Press.

- European Commission. (2010). Developing coherent and system-wide induction programmes for beginning teachers: A handbook for policymakers. Brussels: Commission of the European Communities.
- Evans, L. (2008). Professionalism, professionality and the development of education professionalism. *British Journal of Educational Studies*, 56(1), 20–38.
- Evertson, C. M., & Smithey, M. W. (2000). Mentoring effects on protégés' classroom practice: an experimental field study. *The Journal of Educational Research*, 93(5), 294–304.
- Evetts, J. (2006). Introduction: trust and professionalism: challenges and occupational change. *Current Sociology*, 54(4), 515–531.
- Fletcher, S. J., & Mullen, C. A. (Eds.). (2012). The SAGE handbook of mentoring and coaching in education. London: SAGE.
- Fransson, G. (2010). Mentors assess mentees? A overview and analyses of the mentorship role concerning newly qualified teachers. European Journal of Teacher Education, 33(4), 375–390. http://dx.doi.org/10.1080/02619768.2010.509426.
- Fransson, G., & Grannäs, J. (2013). Dilemmatic spaces in educational contexts towards a conceptual framework for dilemmas in teachers work. *In Teachers and Teaching: Theory and Practice, 19*(1), 4–17. http://dx.doi.org/10.1080/13540602.2013.744195.
- Garvey, R., & Westlander, G. (2013). Training mentors behaviors which bring positive outcomes in mentoring. In J. Passmore, D. B. Peterson, & T. Freire (Eds.), *The Wiley-Blackwell handbook of the psychology of coaching and mentoring* (pp. 243—265). Chichester, West Sussex: Wiley-Blackwell.
- Gilles, C., & Wilson, J. (2004). Receiving as well as giving: mentors' perceptions of their professional development in one teacher induction program. *Mentoring & Tutoring: Partnership in Learning*, 12(1), 87–106. http://dx.doi.org/10.1080/ 1361126042000183020.
- Glassford, L. A., & Salinitri, L. (2007). Designing a successful new teacher induction program: an assessment of the Ontario experience 2003–2006. *Canadian Journal of Educational Administration and Policy*, 60, 1–34.
- Gold, Y. (1996). Beginning teacher support. Attrition, mentoring, and induction. In J. P. Sikula, T. J. Buttery, & E. Guyton (Eds.), Handbook of research on teacher education (2nd ed.). (pp. 548–594). New York: Association of Teacher Educators. Macmillan.
- Haggarty, L., Postlethwaite, K., Diment, K., & Ellins, J. (2011). Improving the learning of newly qualified teachers in the induction year. *British Educational Research Journal*, 37(6), 935–954. http://dx.doi.org/10.1080/01411926.2010.508513.
- Harrison, J., Lawson, T., & Wortley, A. (2005). Action research and the professional development of induction tutors: some unforeseen impacts and pitfalls. What do we learn? *Journal of In-Service Education*, 31(1), 83–103.
- Hobson, A. J., Ashby, P., Malderez, A., & Tomlinson, P. D. (2009). Mentoring beginning teachers: what we know and what we don't. *Teaching and Teacher Education*, 25(1), 207–216.
- Hökkä, P., & Eteläpelto, A. (2014). Seeking new perspectives on the development of teacher education: a study of the finnish context. *Journal of Teacher Education*, 65(1), 39–52.
- Hudson, P. (2013). Mentoring as professional development: 'growth for both' mentor and mentee. *Professional Development in Education*, 39(5), 771–783. http://dx.doi.org/10.1080/19415257.2012.749415.
- Hudson, P. (2014). Feedback consistencies and inconsistencies: eight mentors' observations on one preservice teacher's lesson. European Journal of Teacher Education, 37(1), 63–73. http://dx.doi.org/10.1080/02619768.2013.801075.
- Ibrahim, A. S. (2012). Induction and mentoring of novice teachers: a scheme for the United Arab Emirates. *Teacher Development: An International Journal of Teachers' Professional Development*, 16(2), 235–253. http://dx.doi.org/10.1080/13664530.2012.688676.
- Ingersoll, R. M., & Strong, M. (2011). The impact of induction and mentoring programs for beginning teachers: a critical review of the research. *Review of Educational Research*, 81(8), 201–233. http://dx.doi.org/10.3102/0034654311403323.
- Iucu, R., & Stingu, M. (2013). Training induction mentors: alternative policy scenarios of Romanian educational system. *Procedia Social and Behavioral Sciences*, 76, 931–934.
- Jones, M. (2009). Supporting the supporters of novice teachers: an analysis of mentors' needs from twelve European countries presented from an English perspective. Research in Comparative and International Education, 4(1), 4–21. http://dx.doi.org/10.2304/rcie.2009.4.1.4.
- Kemmis, S., Heikkinen, H., Fransson, G., Aspfors, J., & Edwards-Groves, C. (2014). Mentoring of new teachers as a contested practice: supervision, support and collaborative self-development. *Teaching and Teacher Education*, 43, 154–164. http://dx.doi.org/10.1016/j.tate.2014.07.001.
- Koballa, T. R., Kittleson, J., Bradbury, L. U., & Dias, M. J. (2010). Teacher thinking associated with science-specific mentor preparation. *Science Education*, 94(6), 1072–1091
- Korthagen, F., & Vasalos, A. (2005). Levels in reflection: core reflection as a means to enhance professional growth. *Teachers and Teaching: Theory and Practice*, 11(1), 47–71. http://dx.doi.org/10.1080/1354060042000337093.
- Langdon, F. J. (2014). Evidence of mentor learning and development: an analysis of New Zealand mentor/mentee professional conversations. *Professional Development in Education*, 40(1), 36–55. http://dx.doi.org/10.1080/ 19415257.2013.833131.
- Lingard, B. (2010). Policy borrowing, policy learning: testing times in Australian schooling. *Critical Studies in Education*, *51*(2), 129–147.
- Massey, D. B. (2005). For space. London: Sage.

- McCrary, N. E., & Mazur, J. M. (2010). Conceptualizing a narrative simulation to promote dialogic reflection: using a multiple outcome design to engage teacher mentors. *Educational Technology Research and Development*, 58(3), 325–342.
- Menegat, G. M. (2010). Mentor/protégé interactions and the role of mentor training within a novice teacher mentoring program (Diss.). Lewis & Clarke College, Graduate School of Education and Counseling. UMI Number: 3403009. UMI Dissertation Publishing.
- Mullen, C. A. (2012). Mentoring: an overview. In S. J. Fletcher, & C. A. Mullen (Eds.), The SAGE handbook of mentoring and coaching in education (pp. 7–23). London: SAGE.
- Noblit, G., & Hare, R. D. (1988). *Meta-ethnography: Synthesizing qualitative studies*. Newbury Park. CA: Sage.
- Orland, L. (2001). Reading a mentoring situation: one aspect of learning to mentor. *Teaching and Teacher Education*, 17(1), 75–88.
- Orland-Barak, L. (2001). Learning to mentor as learning a second language of teaching. *Cambridge Journal of Education*, 31(1), 53–68.
- Patrick, F., Elliot, D., Hulme, M., & McPhee, A. (2010). The importance of collegiality and reciprocal learning in the professional development of beginning teachers. *Journal of Education for Teaching*, 36(3), 277–289. http://dx.doi.org/10.1080/ 02607476.2010.497373.
- Sandelowski, M., & Barroso, J. (2007). *Handbook for synthesizing qualitative research*. New York: Springer.
- Schön, D. (1983). The reflective practitioner: How professionals think in action. New York. NY: Basic Books.
- Schön, D. (1992). The theory of inquiry: Dewey's legacy to education. *Curriculum Inquiry*, 22, 119–139.
- Sinclair, C. (2003). Mentoring online about mentoring: possibilities and practice. Mentoring & Tutoring: Partnership in Learning, 11(1), 79–94.
- Smith, K., & Ülvik, M. (2014). Learning to teach in Norway: a shared responsibility. In O. McNamara, J. Murray, & M. Jones (Eds.), Workplace learning in teacher education. International practice and policy (pp. 261–277). New York, Heidelberg, Dordrecht, London: Springer.

- Stanulis, R. N., & Ames, K. T. (2009). Learning to mentor: evidence and observation as tools in learning to teach. *The Professional Educator*, 33(1), 1–11.
- Strong, M., & Baron, W. (2004). An analysis of mentoring conversations with beginning teachers: suggestions and responses. *Teaching and Teacher Education*, 20(1), 47–57.
- Sundli, L. (2007). Mentoring a new mantra for education? *Teaching and Teacher Education*, 23(2), 201–214.
- Tang, S. Y. F. (2012). Knowledge base of mentoring and mentor preparation. In S. J. Fletcher, & C. A. Mullen (Eds.), The SAGE handbook of mentoring and coaching in education (pp. 478–493). London: SAGE.
- Tang, S. Y. F., & Choi, P. L. (2005). Connecting theory and practice in mentor preparation: mentoring for the improvement of teaching and learning. *Mentoring & Tutoring: Partnership in Learning*, 13(3), 383–401.
 Ulvik, M., & Langørgen, K. (2012). What can experienced teachers learn from
- Ulvik, M., & Langørgen, K. (2012). What can experienced teachers learn from newcomers? Newly qualified teachers as a resource in schools. *Teachers and Teaching: Theory and Practice*, 18(1), 43-57.
- Ulvik, M., & Smith, K. (2011). Veilederrollen. En profesjon innenfor profesjonen [The mentor role. A profession within the profession]. *Bedre skole*, *4*, 82–87.
- Ulvik, M., & Sunde, E. (2013). The impact of mentor education: does mentor education matter? *Professional Development in Education*, 39(5), 754–770.
- Wang, J. (2001). Contexts of mentoring and opportunities for learning to teach: a comparative study of mentoring practice. *Teaching and Teacher Education*, *17*(1), 51–73.
- Wang, J., & Odell, S. J. (2002). Mentored learning to teach according to standards-based reform: a critical review. *Review of Educational Research*, 72(3), 481–546. http://dx.doi.org/10.3102/00346543072003481.
- Waterman, S., & He, Y. (2011). Effects of mentoring programs on new teacher retention: a literature review. *Mentoring & Tutoring: Partnership in Learning*, 19(2), 139–156.
- Wise, A. E. (2005). Establishing teaching as a profession: the essential role of professional accreditation. *Journal of Teacher Education*, *56*(4), 318–331.
- Zimmer, L. (2006). Qualitative meta-synthesis: a question of dialoguing with texts. *Journal of Advanced Nursing*, *53*(3), 311–318.