

**The Enactment Approach to Practice-Based Teacher Education Coursework:
Expanding the Geographic Scope to Norway and Finland**

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In recent decades, teacher education has received increased attention from policymakers and researchers. The teacher has been recognised as an important factor in pupils' learning (Organisation for Economic Co-operation and Development [OECD], 2005), and research has emphasised the importance of high-quality teacher education (Darling-Hammond, Holtzman, Gatlin, & Heilig, 2005). Thus, teacher education has been not only heavily recognised but also criticised, both internationally (Darling-Hammond & Bransford, 2005; OECD, 2005) and in the Nordic countries (Finne, Mordal, & Stene, 2014; Lid, 2013; Mikkola & Lähde, 2006; Norwegian Agency for Quality Assurance in Education [NOKUT], 2006). This criticism revolves around the fragmentation of teacher education and its disconnect from real classroom practice. Therefore, policymakers and scholars worldwide stress the importance of grounding teacher education more profoundly in practice (British Educational Research Association [BERA], 2014; Darling-Hammond et al., 2017; Moon, 2016; National Council for Accreditation of Teacher Education [NCATE], 2010; NOKUT, 2006). Scholars such as Kennedy (1999) have discussed “the problem of enactment”—that teacher education does not prepare teacher candidates to take on the practical work in classrooms. Evidence shows that grounding teacher education in practice contributes to enhancing pupils' learning (Boyd, Grossman, Lankford, Loeb, & Wyckoff, 2009; Brouwer & Korthagen, 2005; Darling-Hammond, Chung, & Frelow, 2002), increasing teacher retention (Feiman-Nemser, Tamir, & Hammerness, 2014), and developing teacher candidates' future practical competence in the classroom (Brouwer & Korthagen, 2005; Darling-Hammond et al., 2002).

Hence, scholars have suggested extending the amount of fieldwork for teacher candidates (BERA, 2014; Müller, Álamos, Meckes, & Sanyal, 2015) or organising the education in residency programmes (Silva, McKie, Knechtel, Gleason, & Makowsky, 2014; Zeichner, 2016). Fieldwork throughout teacher education is critical for teacher candidates' future practical competence (Anderson & Stillman, 2013; Brouwer & Korthagen, 2005; Darling-

Hammond & Bransford, 2005; Grossman, Hammerness, McDonald, & Ronfeldt, 2008; National Research Council [NRC], 2010; Ronfeldt, 2012, 2015), and teacher candidates often cite fieldwork as the most valuable education experience (Darling-Hammond, Hammerness, Grossman, Frances, & Shulman, 2005). Still, research has shown that the field placement component in teacher education is variable and that there are challenges in ensuring its quality (Darling-Hammond, Hammerness, et al., 2005; Grossman et al., 2008). Furthermore, research has historically highlighted the school's role in maintaining the status quo and upholding existing teaching practices (Britzman, 2003; Lortie, 1975; Smith, Cohen, & Pearl, 1969; Zeichner & Tabachnick, 1983).

Scholars have argued that the campus site of teacher preparation must increasingly be grounded in practice (Darling-Hammond, 2006; Hammerness et al., 2005; Levine, 2006). This stream of research has emphasised coursework based on the knowledge and skills that teacher candidates require to take on the profession's work (Darling-Hammond & Bransford, 2005; Kennedy, 1999). Research has shown that strong teacher education programmes combine fieldwork and coursework, thus avoiding the fragmented characteristic of teacher education (Hammerness, 2013; Kennedy, 2008; Zeichner, 2010). NOKUT (2006) has asked for greater connections between campus courses and fieldwork in schools. A U.S. Blue Ribbon panel argued that teacher education must be "turned upside down" so that practice becomes the basis for learning to teach (NCATE, 2010). One specific strand of research has shown increasing interest in instructional practices and pedagogies of teacher education that ground campus coursework in practice (Ball & Cohen, 1999; Ball & Forzani, 2009; Feiman-Nemser, 2008; Grossman, Hammerness, & McDonald, 2009). This research has argued not that field placement is of utmost importance to centring teacher education in practice, but that education at the university site should be grounded in central practices that teachers engage in (Ball & Cohen, 1999; Forzani, 2014; McDonald, Kazemi, & Kavanagh, 2013).

This approach to practice-based teacher education, which has been called the enactment approach (Jenset, 2017), is clearly conceptualising a way to understand practice-based teacher education. This is important because even though scholars and policymakers in the Nordic countries and across the world point to practice as an important element of teacher education, the term “practice” or “practice based” remains vague (Blikstad-Balas, 2013) and “messy”, as reflected in the various definitions of practice in different contexts (Forzani, 2014; Lampert, 2010; Sjöberg & Hansén, 2006). Rather than simply talking about basing teacher education in practice or connecting it to practice, there is a need to clarify what this means.

However, the body of research conceptualised within the enactment approach is primarily set within the U.S. context (see Cochran-Smith et al., 2016), and little is known about the extent to which this approach to practice-based teacher education is evident in other country contexts. As Norway and Finland both have a strong rhetoric around “research-based” teacher education and simultaneously emphasise the importance of practice, they are interesting settings for investigating the extent to which the geographic scope of the enactment approach has expanded to other contexts. This article therefore examines research on teacher education coursework in the Norwegian and Finnish contexts to study the extent to which research on Norwegian and Finnish teacher education coursework can be conceptualised within the enactment approach to practice-based teacher education. The explicit attention to teacher education coursework thereby limits this article’s focus to research on teacher education fieldwork and practices of mentor teachers or supervisors during field placement.

The following section clarifies the meaning of the enactment approach to practice-based teacher education.

The Enactment Approach to Practice-Based Teacher Education

Over the past decade, a small but growing body of research has emphasised practice as the central element of teacher education (Ball & Cohen, 1999; Forzani, 2014; McDonald et al.,

2013). This has been conceptualised as the enactment approach to practice-based teacher education (Jenset, 2017). This body of research highlights the campus site of teacher education (i.e., teacher education coursework) as an important site for making teacher education practice based, but researchers have expressed differing views on practice. Lampert (2010) described how the term “practice” has at least three different meanings within this body of research. First, teaching is seen as a collection of practices or best practices because teaching practices can be decomposed into small, distinct practices. Second, these parts can therefore be separately rehearsed or practised for future performance. Hence, smaller feasible practices can be mastered before entering the classroom setting with the teaching practices in their full complexity. Finally, an understanding of practice as the practice of teaching is evident within this approach (Lampert, 2010). The argument behind this specific understanding and use of the term “practice” is that if teaching is a profession, like law or medicine, then it has shared practices and a shared culture that should be taught and cultivated.

Even though the term “practice” is used in different ways within this approach, Forzani (2014) argued that efforts to centre teacher education around practice within the enactment approach rest upon three important ideas. The first idea is that instruction should aim for ambitious learning goals (Forzani, 2014). Because this approach views learning as interactive work rather than knowledge transmission, it also sees teaching as specialised work. Teacher education must help teacher candidates learn complex and improvisational practices rather than traditional lecturing (Forzani, 2014). The second idea is that teaching is partially improvisational and thus uncertain. Teaching depends on the relationship between the teacher and what he or she knows, the pupils and what they know and can do, and the content. This makes teaching a contingent practice that demands flexibility. However, Forzani (2014) argued that teaching is partly predictable and that training can help candidates understand both the predictable paths of teaching and its uncertainties. The third idea is to focus in depth

on academically challenging content (see Shulman, 2015), based on the knowledge that pupils of a similar age often encounter similar problems when facing the same content. Candidates should know their subject matter in profound ways to react quickly to a diverse understanding of the content.

Based on these ideas, research on the enactment of practice has identified teaching practices that teacher candidates should master before taking full responsibility for classrooms in schools. Such practices are identified as “core practices” (Grossman, Hammerness, & McDonald, 2009), “high-leverage” teaching practices (Ball & Forzani, 2009), or “intellectually ambitious instruction” (Lampert et al., 2013). Grossman, Hammerness, and McDonald (2009) defined the concept of core practices as

practices that share certain characteristics: They occur with high frequency in teaching; novices can enact them in classrooms across different curricula or instructional approaches; novices can actually begin to master them; they allow novices to learn more about pupils and about teaching; they preserve the integrity and complexity of teaching; they are research-based; and have the potential to improve student achievement. (p. 277)

These core practices are observable in classroom teaching, and they can be decomposed into smaller micropractices more easily handled by the teacher candidates (Grossman, Hammerness, & McDonald, 2009).

This body of research has also emphasised instructional practices or pedagogies for teacher education alongside these core practices. For instance, Ball and Cohen (1999) argued that teacher education could be grounded in practice by cataloguing and making records of practices accessible to teacher educators. These records of practice constitute what they called the curriculum of teacher education. This call is in line with that of Grossman, Compton, et al. (2009), who compared professional education programmes such as those of the clergy,

clinical psychology, and teaching. They suggested a framework of representation, decomposition, and approximation of practice as pedagogies of practice across these professions. Complex practices should be represented to the candidates and decomposed into smaller parts, and the candidates need opportunities to engage in activities approximating the practices of the profession (Grossman, Compton, et al., 2009).

Many later studies have proposed a similar framework to that of Grossman, Compton, et al. (2009). For example, McDonald et al. (2013) proposed a pedagogy of teacher education in the form of a learning cycle in four phases; they explained that one could start a teaching segment in any of these phases. The learning cycle entails a phase of introduction of the complex teaching practices. Potential pedagogies would be modelling or using videos or artefacts of teaching. The second phase is preparing for and rehearsing the practice; relevant pedagogies would be microteaching or rehearsals. The third phase is the actual enactment of the activity with pupils, alone or in cooperation with others. The fourth phase is analysing the enactment and moving forward, which might appear as reflection writing (McDonald et al., 2013). The cycle of enactment and investigation put forward by Lampert and colleagues (Lampert et al., 2013; Lampert, Ghouseini, & Beasley, 2015) entailed similar steps as those above but highlighted two stages of analysis: one after observing a complex practice and one after enacting it in the classroom.

To summarise, the enactment approach to practice-based teacher education provides frameworks and instructional practices for teacher education to ground the coursework in practice. It views teaching as a complex, contextualised practice that can be learned and developed through routinisation and improvisation. Within the enactment approach, distinct, complex teaching practices are modelled and decomposed for the teacher candidates before the candidates rehearse and reflect upon them.

In this article, I intend to examine the extent to which such an approach to practice-based teacher education can be found within research on teacher education coursework in Norway and Finland. Before doing so, I will first clarify the contexts in which this research is set.

Methods

Contexts

The Nordic context has seen an increased emphasis on teacher education (Bronäs & Selander, 2006; Mattsson, Eilertsen, & Rorrison, 2011), specifically practice-based teacher education. Finland is highly recognised for its longstanding focus on teacher preparation, including master-level teacher training, as well as its skilled, autonomous teaching force (Afdal & Nerland, 2014; Hansén, Forsman, Aspfors, & Bendtsen, 2012; Niemi & Jakku-Sihvonen, 2006; OECD, 2014; Sahlberg, 2011). Scholars have argued that the results achieved by Finnish pupils on international achievement tests have contributed to the high status of Finnish teacher education (Sahlberg, 2011; Tryggvason, 2009). Burn and Mutton (2015), however, noted that the link between PISA scores and teacher education is only inferred. Another aspect of the high quality of Finnish teacher education is its capacity to attract talented and motivated students (Niemi, 2016). The selection rate for primary teacher education is 5%–10%, while the corresponding rate for secondary teacher education is 20%–40%, depending on the subject (Niemi, 2016).

Finnish teacher education underwent significant changes in the 1970s (Hansén, Eklund, & Sjöberg, 2015; Niemi & Jakku-Sihvonen, 2006; Tirri, 2014). The result was a switch from the Nordic seminar tradition to academic-oriented, university-based education (Niemi, 2016; Tirri, 2014). This affected the competence expected of teacher educators; most teacher educators in Finland today hold a PhD degree (Tirri, 2014). This is also true for many teachers in the training schools that partner with universities and support teacher candidates during at least one placement period (Moran & Clarke, 2012). Teacher education was organised as a

master's degree in 1979, and the 1970s was a period of academisation in Finnish teacher education (Tirri, 2014). A period of decentralisation followed in the 1980s, when the municipal curriculum was adopted (Tirri, 2014). This led to greater professional autonomy for Finnish teachers and a culture of trust, where the teachers enjoyed an increased standing in society. The ideal was research-based teacher education with the goal of creating teachers with critical thinking skills (Tirri, 2014).

In Norway, the status of teachers and teacher education is somewhat different. Teacher education has particular challenges, as it is spread over too many institutions (university colleges and universities), and many university colleges are not yet sufficiently qualified to provide master-level education. Few applicants are qualified for the programmes targeted at primary education, and the university-based programmes are far more selective (Expert Committee on the Role of the Teacher, 2016).

Like in Finland, Norway's national teacher education tradition has existed since the early 1900s in different forms (Munthe & Rogne, 2016). However, university-based teacher education has had historically weak relations with the universities, partly due to a lack of academic standards (Munthe & Rogne, 2016). Kvalbein (2003) described the teacher education culture at the university colleges as similar to a school culture rather than an academic culture—what she referred to as the seminar tradition within teacher education. Teacher candidates were followed up closely, and they would be certified unless they made fatal mistakes (Kvalbein, 2003). One current trend in the national steering of teacher education is the movement towards research-based teacher education, similar to the Finnish context. Munthe and Rogne (2016) claimed that teacher education in Norway is expected to be research based (i.e., to conduct and disseminate research). Beginning in 2019, all Norwegian teachers will be required to undergo a master's programme (Norwegian Government, 2014). In addition, a graduate school for research in teacher education has been

established as a means of increasing the quality of teacher education and basing it in research to a greater extent (Smith, 2015; Østern, 2016). Munthe and Rogne (2016) highlighted the simultaneous emphasis on practice in Norwegian teacher education, where research is seen as one way to strengthen knowledge about and for practice. Conway and Munthe (2015) referred to this as “research-informed clinical teacher education” (p. 146). This is further recognised in national research and development efforts such as the national project “Practice as Integrative Element in Teacher Education” (Gilje, 2012) and the establishment of the Centre of Excellence in Teacher Education in 2010 (Lund, Jakhelln, & Rindal, 2015). Although the tradition of research on teacher preparation in Norway is still developing (Munthe & Haug, 2009), substantial resources and efforts are currently being invested in strengthening teacher education (Munthe, Malmo, & Rogne, 2011; NOKUT, 2006; Østern, 2016).

The general attention to practice-based teacher education across these two contexts makes them interesting settings for investigating the impact of the enactment approach as a specific way to base teacher education in practice. The simultaneous strong focus on research-based teacher education in these contexts, especially in Finland, makes them interesting sites for this purpose.

Inclusion Criteria

This article is a literature review, albeit not a systematic review (Grant & Booth, 2009). The inclusion criteria are nevertheless briefly clarified in the following. The literature search was conducted in the databases Google Scholar, ERIC, and Oria, with variants of the terms “core practice” OR “intellectual ambitious instruction” OR “high leverage teaching practice”, which are central concepts within the body of research on the enactment approach. This search provided no hits, so another search was conducted with a combination of the terms “teacher education” AND “practice” AND “coursework” and their equivalent terms. The searches were conducted in English and Norwegian. As I do not speak Finnish, I conferred

with two independent Finnish colleagues in the field. They conducted searches using the equivalent Finnish terms, but these resulted in no hits even among core texts published in the American context. The search was limited to the years 2000 to 2016 and included peer-reviewed research only.

It proved difficult to find relevant research from the Norwegian and Finnish contexts with the chosen search terms. Through interviews with Norwegian teacher educators, Hammerness (2013) concluded that the aspect of enactment of practice did not seem to be prevalent and that teacher educators expressed scepticism about addressing methods of teaching in a practical and technical way. Furthermore, in a review of research on teacher education in Norway between 2000 and 2010, Haugan (2011) ascertained the scarcity of research on teacher education coursework. Although the search for this paper revealed several studies discussing the theory–practice relationship in teacher education in the Norwegian (e.g., Afdal, 2016; Fosse, 2016; Fosse & Hovdenak, 2014; Hatlevik, 2014) and Finnish (e.g., Sjöberg & Hansén, 2006) contexts, the article did not concern instructional practices of teacher education and was therefore excluded from this review.

To find research from the Norwegian and Finnish contexts, the scope was broadened by eliminating the term “coursework” from the search. Only literature reporting on research as close as possible to the coursework on campus was included. From the references in these studies, other peer-reviewed research was included, resulting in 36 relevant pieces from Norway (18) and Finland (18). Research on teacher education educating for primary and lower secondary schools as well as teacher education educating for secondary schools was included due to the scarcity of research.

Systematisation of Research Studies

After the first step of including or excluding studies based on their relevance to the research question of this article, the included studies were reviewed for their research focus,

research design, and findings. The studies were organised according to these aspects in two tables, one for each country (see Appendix 1). Finally, the research focus of the reviewed studies was subjected to a thematic analysis through open coding (Saldaña, 2012). The themes found were merged and narrowed down, resulting in four themes that are presented below and in the appendix.

Research on Practice-Based Teacher Education Coursework in Norway and Finland

The review of research on practice-based teacher education coursework from Norway and Finland revealed similar themes across the studies. These studies are therefore outlined together in the following. The headings illustrate the themes found within this body of research.

Instructional Methods and Tools Grounding Teacher Education in Practice

Since the review by Haugan in 2011, the body of research in Norway focusing on ways of connecting theory and practice in teacher education has grown. Some research has investigated instruction on campus, as requested by Haugan (2011); a total of seven studies were found in this category within the Norwegian literature. The studies most closely connected to the focus of interest in this article are three small-scale studies from the Norwegian context highlighting specific methods or tools in teacher education to connect theory and practice. Through evaluative logs from 40 teacher candidates combined with eight interviews, Thorsen (2012) investigated the use of rehearsals, as did Dahl (2012) across three cohorts of teacher candidates ($n = 7$, $n = 18$, and $n = 30$). The transparency of the research designs and empirical findings of these two studies was somewhat weak, but both concluded that the use of practice-oriented teaching methods contributes to better connections between theory and practice. The third study, a small case study ($n = 6$) by Krumsvik and Smith (2009), reached the same conclusion based on an investigation of videopapers and interviews with

teacher candidates. A videopaper is a form of literature in which the text is annotated with digital videos.

A body of research in Norway has investigated case methodology in teacher education, stemming from a national reform effort to develop problem-based, practice-oriented teacher education using information and communications technology tools (Ludvigsen & Flo, 2002). At the University of Oslo, the teacher candidates produced portfolios based on written cases that were prefabricated, written cases they wrote themselves from their placements, and video cases (Hauge, 2002, 2006). Hauge (2002) concluded that the case methodology and portfolios function only to some extent as “boundary objects” between theory and practice. Still, survey and interview data revealed that teacher candidates saw this methodology as productive in transforming theory into practice (Hauge, 2006). Two dissertations explored this further: Both Jahreie (2010) and Fosse (2011) investigated teacher candidates’ learning across coursework and fieldwork by examining the use of tools such as lesson plans and case methodology. Jahreie (2010) followed four candidates across their learning contexts throughout one academic year, and Fosse (2011) did the same with two groups of candidates ($n = 9$). Based on observations of campus activities and collaborative schools, both found that the candidates’ learning seemed to be context bound and that it was challenging for them to cross the historical and rigid boundaries between contexts. Both authors concluded that to connect the contexts, the teacher candidates needed scaffolding and support while working with tools such as lesson plans and case methodology. However, they noted that the teacher educators in their studies played a withdrawn role (Fosse, 2011; Jahreie, 2010).

Six studies targeted practice-based teaching methods in teacher education coursework in Finland. In one small study, Routarinne and Ylirisku (2012) investigated the use of a video card game in a teacher education course. Teacher candidates ($n = 9$) observed snippets of videos of first-grade literacy education and wrote down their observations of these snippets on

cards. In groups, they categorised the different cards into emergent themes they had agreed upon. Based on an analysis of videos of the candidates undertaking the video card game, Routarinne and Ylirisku (2012) claimed that this abstraction and categorisation contributed to linking theory and practice. They found that the candidates were able to refer to readings and connect them to their observations. Another study reported on the use of teacher candidates' questions during demonstrations in science education (Ahtee, Juuti, Lavonen, & Suomela, 2011). When the candidates ($n = 110$) were asked to write questions for pupils, almost half of the candidates asked inappropriate questions or no questions at all. The authors called for further emphasis on questions connected to practical work in science education. However, they did not report on teaching methods within the coursework that aimed to enhance the candidates' use of questions.

Another body of research accounts for Finnish teacher educators' and candidates' reports of teaching methods. For instance, Tryggvason (2009) interviewed 18 Finnish teacher educators in groups; they reported that they frequently modelled teaching and exposed their candidates to many learning theories and teaching strategies. They also claimed to use specific teaching techniques for discussions and arguments, as well as role play and drama exercises (Tryggvason, 2009). Their responses contrast with the findings of an earlier study by Niemi (2002), who surveyed 204 recently qualified teachers. The respondents reported that they did not see their teacher educators use the teaching methods they read about in the literature; rather, the candidates stated that their studies were not connected to real life (Niemi, 2002).

Niemi framed the 2002 study within research on active learning and continued this strand of research with other colleagues, arguing that active learning in teacher education (e.g., group work, discussions, and teaching practice) promotes professional practices (Niemi & Nevgi, 2014; Niemi, Nevgi, & Aksit, 2016). These studies were based on an array of surveys

investigating active learning and professional competencies. They defined professional competencies broadly as the knowledge and skills necessary for classroom teaching, the ability to meet the needs of different learners, collaboration with other stakeholders, and ethical commitments. Niemi and Nevgi (2014) also developed a research instrument measuring the degree of research studies in teacher education, making a total of three survey instruments ($n = 341$, $n = 454$, and $n = 287$). They found that active learning and research studies reinforced each other and promoted professional competencies. A study comparing teacher education in Turkey and Finland corroborated this finding (Niemi et al., 2016) and uncovered effects on teacher candidates' teaching competencies in classrooms. However, the impact was greater in the Turkish context as compared to the Finnish context; the authors speculated whether this was due to the strong autonomy entailed in the Finnish educational system, both in schools and in teacher education.

Autonomous and Reflective Teachers With an Inquiry Stance Towards Practice

Research on practice-based teacher education has frequently been framed within a focus on research-based teacher education in the Finnish context. Eight studies under this theme were included in this review. These studies emphasised that a research-based model of teacher education is not about educating researchers but about educating autonomous, professional teachers with an inquiry stance towards their own teaching (e.g., Jyrhämä et al., 2008; Krokfors et al., 2011; Niemi, 2016; Toom et al., 2010). To some extent, these studies underscored the practical aspects of teacher education and highlighted the relationship between their research-based approach to teacher education and classroom teaching practices. For instance, Krokfors et al. (2011) investigated teacher educators' appreciation of this version of a research-based model based on survey data ($n = 33$) and interview data ($n = 8$). They concluded that such a model must have a pragmatic orientation; specifically, inquiry should be situated closely to everyday school practices for teacher candidates to implement a

research stance towards their own teaching. This study was part of a larger research project on a multimode teacher education programme for candidates that already worked as teachers.

Toom et al. (2010) concluded that in addition to focusing on practical teaching skills (the “basic level”), teacher education needs to pay attention to a “conceptual level” that can promote teachers’ professional development (p. 341). They stressed that for teacher education to be research based, teacher candidates should learn to make independent pedagogical judgements rather than getting predesigned practical tips and tricks (Toom et al., 2010). This argumentation was influenced by the thinking of Kansanen (1991, 2004), who argued that teacher education consists of a “basic level” characterised by the mastering of skills. He stated that one develops this level over the years by working as a teacher and that teacher education is not necessarily needed to enhance these skills. He claimed that teacher education plays a vital role in developing the “general level” of teacher education. This level deals with discussion, thinking, and reflection; Kansanen (2004) proposed research-based teacher education as a model to achieve this.

Norway has also witnessed a focus on research-based teacher education as a way to base teacher education in practice (Ministry of Education and Research, 2008–2009). A total of six studies under this theme were included in this review. Munthe and Rogne (2015) argued that inquiry is a way for teachers to learn continuously in an increasingly complex classroom setting. They discussed whether the understanding of research-based teacher education in the Norwegian setting privileges research at the cost of inquiry. Some Norwegian research has studied inquiry projects in teacher education. For instance, Husebø (2012) reported on an action research project conducted by five teacher candidates in collaboration with two teacher educators at schools and two at universities. He argued that throughout this project, a “community of practice” was established that enabled the teacher candidates to develop their own practice and connect theory and practice (p. 467). Andreassen (2015) analysed 13 action

research reports by teacher candidates at the bachelor's level and identified two orientations in these reports. He claimed that the action research was oriented towards either improving the practical context or exploring an idea (e.g., increasing their knowledge about a concept). In another study that implemented lesson study as an intervention, Helgevold, Næsheim-Bjørkvik, and Østrem (2015) found that the candidates in the intervention group ($n = 28$), as compared to the business-as-usual-group ($n = 27$), focused on the pupils' learning rather than their own teaching. The authors ascribed the differences to the use of tools (i.e., detailed lesson plans and a handbook developed within the project) in the intervention group.

All of these studies claimed that action research plays a vital role in helping teacher candidates connect theory and practice. However, Ulvik and colleagues described how working with action research in teacher education is both challenging and time-consuming (Ulvik, 2014; Ulvik & Riese, 2016). Analysing 14 action research reports by teacher candidates, Ulvik (2014) argued that for such work to link theory and practice, a proper framework for conducting action research is needed. She claimed that if the necessary resources and support are not in place, then the costs might outweigh the benefits for teacher candidates, who might avoid taking an inquiry stance in the future. Ulvik and Riese (2016) further examined questionnaires, pre- and post-focus group interviews, and action research reports by 30 candidates. They stated that the work to connect theory and practice is neverending and that the teacher candidates seemed to need scaffolding and support in doing so, even after completing action research.

Research on the master's thesis in the Finnish context has underlined the inquiry aspect of teacher education. In her dissertation, Maaranen (2009b) analysed essays by the teacher candidates ($n = 9$), as well as surveys ($n = 113$ and $n = 35$) and interviews ($n = 8$ and $n = 23$) with them. Her findings revealed that the master's thesis was often seen as too time-consuming, work intensive, and perhaps not worthwhile. Still, Maaranen (2010) argued that

its full potential might not be met mainly because it was not always directly targeted at the practical aspects of teaching and the everyday life of schools. She and her colleagues found that the teacher candidates did not experience the master's thesis as a way to integrate theory and practice. Rather, they reported that this integration took place in other courses or at other times during their programme, such as their practicum and subject didactical courses (Maaranen, 2009a; Maaranen & Krokfors, 2008). Maaranen (2009b) asserted that the potential and function of the master's thesis should be better explained to the candidates, that the research should be given a more practical emphasis, and that schools should be included as partners to a greater extent. Nevertheless, in an interview study, Maaranen (2009a) found that the teacher candidates ($n = 23$) of the multimode teacher education programmes also saw positive effects of the master's thesis related to their teaching. For instance, they noted an increased awareness of support for pupils' learning; they also reported explaining their teaching methods to parents more often.

Finally, studies have examined the use of the portfolio in the Finnish context (Groom & Maunonen-Eskelinen, 2006; Kaasila & Lauriala, 2012; Kynäslahti et al., 2006). Groom and Maunonen-Eskelinen (2006) compared the portfolio in the Finnish and U.K. teacher education contexts. Through an analysis of course materials, portfolios ($n = 40$), and interviews with supervisors and candidates ($n = 20$), they found less focus on teaching skills (i.e., competencies and standards) in the Finnish case than in the U.K. case. The Finnish case focused more on individual and personal reflection, and the issue of teaching competencies was introduced at a later stage (Groom & Maunonen-Eskelinen, 2006). Groom and Maunonen-Eskelinen (2006) emphasised that the importance of guidance and support by teacher educators was essential at both sites.

Programme Features to Ground Teacher Education in Practice

A range of smaller development projects have investigated the organisational structures of teacher education within the Norwegian context. These studies were part of a national project from 2008 to 2011 that promoted practice as an integrative element of teacher education. Many of these were not thoroughly documented, but a few peer-reviewed studies have been included here. For instance, Gloppen (2013) investigated the triologue (i.e., a conversation between a mentor teacher, a university teacher, and a teacher candidate) and concluded that this way of organising the mentor conversation in practice enhanced the teacher candidates' experience of coherence between coursework and fieldwork. A study introducing concurrent practice for 27 candidates at the Norwegian University of Science and Technology (NTNU) showed that active participation and going from practice to theory made it easier for the students to integrate theory and practice (Wæge & Haugaløkken, 2013). Other studies on concurrent practice revealed that candidates appreciated the intervention, whereas teacher educators felt the approach did not promote the candidates' professional development (Halvorsen, 2014).

Another study from NTNU reported on the testing of a specific model of partnership between universities and schools with the goal of integrating theory and practice (Haugaløkken & Ramberg, 2007). Reporting on surveys of teaching and administrative staff, principals, and students, the authors concluded that considerable work remained before the national objectives for teacher training could be achieved. This pertained to teacher educators' concerns as to whether the candidates developed professional autonomy and a satisfactory knowledge of educational theory (Haugaløkken & Ramberg, 2007).

The organisational structure of teacher education has also been examined in the Finnish context, particularly within a small body of research investigating the multimode programme at the University of Helsinki, of which two studies were included in this literature review. By

examining essays by teacher candidates, combined with an exit survey ($n = 31$), Krokfors et al. (2006) found that the candidates in this programme brought new teaching methods and pedagogical tools to their work in schools. The candidates acknowledged that the teacher education programme tried to use their practical experiences in assignments, discussions, and reflections. Similarly, in a small case study ($n = 3$) based on candidates' portfolios and interviews, Kynäslahti et al. (2006) found that within the multimode programme, the candidates integrated theory and practice from theory to practice, from practice to theory, and through a reciprocal integration of theory and practice. Kynäslahti et al. (2006) concluded that the portfolio played a vital role in the reciprocal integration.

The Role of Theory as a Means to Link Theory and Practice

Finally, two studies in Finland and one in Norway examined the role of theory and literature in linking theory and practice. Rasmussen and Bayer (2014) compared the reading lists at teacher education programmes from countries that are ranked highly on international tests (i.e., Canada, Singapore, and Finland) with those of a lower-ranked country (i.e., Denmark). They found that while the teacher candidates in Singapore and Canada were expected to read literature combining research-based and practice-based knowledge, their Nordic counterparts mostly read research-based texts. The Finnish programme stood out as the only one that included literature on research methodology. Rasmussen and Bayer (2014) argued that these differences might concern the traditional division of labour between universities (responsible for theory) and schools (responsible for practice) within Danish and Finnish teacher education. They concluded that combining theory and practice, as in the programmes in Canada and Singapore, “provides a more solid foundation for the students’ activities during their practical training” (Rasmussen & Bayer, 2014, p. 816). Similarly, Kaasila and Lauriala (2012) examined teacher candidates’ portfolios during their practicum ($n = 52$) and found that the study of research articles seemed to deepen the candidates’

reflections. In the Norwegian context, Mathisen (2009) found that the candidates who worked the most with theory before their fieldwork reported greater learning outcomes because they had more theoretical concepts with which to evaluate their experiences during placement.

Discussion

While setting forth to investigate the extent to which research on Norwegian and Finnish teacher education coursework can be conceptualised within the enactment approach to practice-based teacher education, it was already evident from the description of the search criteria that the literature within this field in these specific contexts is scarce. There was a need to broaden the scope of the search by widening the search terms, which clearly illustrates that none of the existing research in Finland and Norway is conceptualised within the enactment approach to practice-based teacher education.

After the search scope was widened, it was evident that an increasing body of research is focusing on practice-based coursework. In this review, four themes or ways of basing teacher education coursework in practice were found in the research from the Norwegian and Finnish contexts. A few studies focused on instructional practices (methods, tools, and instruments) to connect theory and practice. More studies focused on research-based teacher education with related assignments (promoting an inquiry stance towards teaching) as a way to base teacher education in practice. There was some research on features of teacher education programmes (e.g., partnerships between schools and universities) that connect the two sites of teacher education. Finally, a few studies examined the role of theory and readings in connecting theory and practice.

Connecting to practice or the grounding of teacher education coursework in practice was often framed within a research-based approach to teacher education rather than within the enactment approach. The research-based approach highlighted an inquiry stance, reflection, research literature, and continuous lifelong learning, and it was most prevalent in the Finnish

context. This might be due to the long tradition of academisation of Finnish teacher education (e.g., Tirri, 2014), where the master's thesis and an emphasis on teachers' autonomy play a key role in understanding teachers' professionalism.

Limitations of the Study and Implications for (Research on) Teacher Education

This study is not a systematic review. The lack of a thorough examination of Finnish literature is a limitation of this study, but I sought to mitigate this limitation by conferring with Finnish colleagues. There seems to be little doubt that the enactment approach to practice-based teacher education is yet to be established as one of many possible ways to conceptualise practice-based teacher education within the Finnish and Norwegian contexts. The limited research on instructional practices in teacher education in these contexts might not fully capture or give credit to all the developmental work happening within institutions in these contexts, which may or may not be conceptualised within this approach. Nevertheless, the review shows that the potential of this approach seems unused.

The reviewed research in this article reveals a seemingly continuous demand for research on practice-based teacher education coursework in the Finnish and Norwegian contexts, as requested by Haugan (2011) in the Norwegian context and by Cochran-Smith et al. (2016) in the U.S. context. While developing this strand of research in the Nordic context, this article proposes that the enactment approach to practice-based teacher education represents an alternative way to conceptualise research on and development projects in practice-based teacher education. Through the conceptualisation of new efforts towards practice-based teacher education within the enactment approach, lessons might be learned in these contexts regarding the implications for teacher education and its instructional practices.

The conceptualisation of practice-based teacher education within the research-based approach, including the teacher candidates' inquiry stance towards teaching, has important implications for teacher education. Still, it seems timely to acknowledge the additional

contributions that the enactment approach to practice-based teacher education might make to providing instructional practices of teacher education that are truly embedded in the teaching profession, as well as a common language about practice in teacher education for teacher educators. This might be crucial to (research in) the Finnish context, with its long tradition of academisation of teacher education. It also bears relevance to Norwegian and other teacher educators and policymakers, who are increasingly looking to Finland and its model of research-based teacher education.

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Appendix 1. Summary of the Literature Review

Table 1.

Norwegian Research

Research study	Research focus	Research design	Findings
<i>Research theme: Instructional methods and tools grounding teacher education in practice</i>			
Dahl (2012)	The use of rehearsals	Small case study across three cohorts of teacher candidates ($n = 7$, $n = 18$, and $n = 30$)	The use of practice-oriented teaching methods contributes to better connections between theory and practice.
Fosse (2011)	The use of case methodology and lesson plans	Small case study, observation of teacher candidates ($n = 9$) over one academic year	<ul style="list-style-type: none"> - Candidates' learning is context bound. - Candidates need scaffolding and support to connect the contexts of theory and practice.
Hauge (2002)	The use of case methodology and portfolios	Small case study with interviews, mind maps, and portfolios of selected cases ($n = 2$ teacher candidates); interviews with additional teacher candidates	Case methodology and portfolios to some extent function to connect theory and practice.
Hauge (2006)	The use of portfolios	Case study, survey ($n = 76$), and interviews ($n = 5$) of teacher candidates	Teacher candidates reported that portfolios were important in transforming theory into practice.

Jahreie (2010)	The use of case methodology and lesson plans	Small case study, observation of teacher candidates ($n = 4$) over one academic year	<ul style="list-style-type: none"> - Candidates' learning is context bound. - Candidates need scaffolding and support to connect the contexts of theory and practice.
Krumsvik and Smith (2009)	The use of videopapers	Small case study with interviews with teacher candidates ($n = 6$)	The use of practice-oriented teaching methods contributes to better connections between theory and practice.
Thorsen (2012)	The use of rehearsals	Small case study, logs ($n = 40$), and interviews ($n = 8$) with teacher candidates	The use of practice-oriented teaching methods contributes to better connections between theory and practice.
<i>Research theme: Autonomous and reflective teachers with an inquiry stance towards practice</i>			
Andreassen (2015)	Teacher candidates' orientations to action research	Small case study, document analysis of teacher candidates' action research reports ($n = 13$)	Two orientations to action research were identified.
Helgevold, Næsheim-Bjørkvik, and Østrem (2015)	Lesson study as an intervention	Intervention study with video recordings of lesson study sessions ($n = 54$ mentoring sessions, with 28 candidates in the intervention group and 27 in the business-as-usual-group)	Candidates in the intervention group focused on the pupils' learning rather than their own teaching.

Husebø (2012)	The use of an action research model in teacher education	Small case study, audio and video recordings of action research cycles by teacher educators ($n = 4$) and teacher candidates ($n = 5$)	A “community of practice” was established that enabled the teacher candidates to develop their own practice and to connect theory and practice.
Munthe and Rogne (2015)	The understanding of “research-based teacher education”	Survey data from all institutions providing teacher education in Norway, interview data from teacher educators ($n = 36$) and teacher candidates ($n = 36$)	Research is emphasised but is led by teachers more than it engages students
Ulvik (2014)	The use of action research in teacher education	Small case study, document analysis of teacher candidates’ action research reports ($n = 14$)	For action research to link theory and practice, a proper framework for conducting action research is needed. If the necessary resources are not in place, then the costs might outweigh the benefits for teacher candidates.
Ulvik and Riese (2016)	The use of action research in teacher education	Case study, survey data, pre– and post–focus group interviews, and action research reports ($n = 30$ candidates)	Teacher candidates seemed to need scaffolding and support to connect theory and practice, even after completing action research.
<i>Research theme: Programme features to ground teacher education in practice</i>			
Gloppen (2013)	The triologue	Small case study, observation data of triologues ($n = 2$ mentoring teachers),	This way of organising the mentor conversation in practice enhanced the teacher candidates’ experience of coherence between coursework and fieldwork.

		and evaluative logs ($n = 76$ teacher candidates)	
Halvorsen (2014)	Concurrent practice	Small case study and interviews with teaching staff ($n = 2$), administrative staff ($n = 2$), mentor teacher ($n = 1$), and teacher candidates ($n = 3$)	Teacher candidates appreciated the intervention, but teacher educators felt that the approach did not promote the candidates' professional development.
Haugaløkken and Ramberg (2007)	Partnership models	Small case study reporting on survey data of teaching staff, mentors, administrative staff, school principals, and teacher candidates, as well as interview data ($n = 12$ teacher candidates)	The partnership model brought teaching staff and mentor teachers closer and created a feeling of joint responsibility. All participants agreed that joint seminars are valuable for linking theory and practice.
Wæge and Haugaløkken (2013)	Concurrent practice	Small case study with survey data ($n = 27$ teacher candidates)	Active participation and going from practice to theory made it easier for the students to integrate theory and practice.
<i>Research theme: The role of theory as a means to link theory and practice</i>			
Mathisen (2009)	Effects of working with literature before fieldwork	Small interview study	Teacher candidates who worked the most with theory before their fieldwork reported greater learning outcomes because they had more theoretical concepts with which to evaluate their experiences during placement.

Table 2.

Finnish Research

Research study	Research focus	Research design	Findings
<i>Research theme: Instructional methods and tools grounding teacher education in practice</i>			
Ahtee, Juuti, Lavonen, and Suomela (2011)	The use of teacher candidates' questions during demonstrations in science education	Artefact study examining teacher candidates' ($n = 110$) written questions	Almost half of the candidates asked inappropriate questions or no questions at all. Further emphasis is needed on questions connected to practical work in science education.
Niemi (2002)	Teaching methods in teacher education	Survey of recently qualified teachers ($n = 204$)	The recently qualified teachers reported that they did not see their teacher educators use the teaching methods they read about in the literature; rather, they stated that their studies were not connected to real life.
Niemi and Nevgi (2014)	Active learning in teacher education (e.g., group work, discussions, and teaching practice)	Survey of teacher candidates ($n = 605$)	Active learning in teacher education promotes professional practices.
Niemi, Nevgi, and Aksit (2016)	Active learning and research studies in teacher education	Comparative study with an array of surveys of teacher candidates ($n = 341$, $n = 454$, and $n = 287$)	Active learning and research studies reinforced each other and promoted professional competencies. However, the impact was greater in the Turkish context than in the Finnish context.
Routarinne and Ylirisku (2012)	The use of a video card game	Small case study, video data of teacher candidates ($n = 9$) undertaking the	The use of practice-oriented teaching methods contributes to better connections between theory and practice.

game

Tryggvason (2009)	Teaching methods in teacher education	Small case study, interview with teacher educators ($n = 18$)	Teacher educators reported that they frequently modelled teaching and exposed their candidates to many learning theories and teaching strategies.
<i>Research theme: Autonomous and reflective teachers with an inquiry stance towards practice</i>			
Groom and Maunonen-Eskelinen (2006)	Use of portfolios	Comparative analysis of course materials, portfolios ($n = 40$), and interviews with supervisors and candidates ($n = 20$) in the Finnish and U.K. teacher education contexts	There was less focus on teaching skills (i.e., competencies and standards) in the Finnish case as compared to the U.K. case. The Finnish case focused more on individual and personal reflection, and the issue of teaching competencies was introduced at a later stage.
Jyrhämä et al. (2008)	Research-based teacher education	Survey data of teacher candidates ($n = 113$)	The teacher candidates saw the research-based approach as the organising theme of teacher education.
Krokkfors et al. (2011)	Teacher educators' appreciation of the research-based teacher education model	Survey data ($n = 33$) and interview data ($n = 8$) of teacher educators	A research-based teacher education model must have a pragmatic orientation; specifically, for teacher candidates to implement a research stance towards their own teaching, inquiry should be situated closely to everyday school practices.
Maaranen (2009a)	Effects of master's thesis	Interviews with teacher candidates ($n = 23$)	Candidates reported an increased awareness of support for pupils' learning and said they explained their teaching methods to parents more often.
Maaranen (2009b)	Master's thesis in teacher education	Essays by teacher candidates ($n = 9$),	The master's thesis was often seen as too time-consuming and work intensive, and perhaps not worthwhile. The

		surveys ($n = 113$ and $n = 35$), and interviews ($n = 8$ and $n = 23$)	potential and function of the master's thesis should be better explained to the candidates, the research should be given a more practical emphasis, and schools should be included as partners to a greater extent.
Maaranen (2010)	Master's thesis in teacher education	Interviews with recently graduated ($n = 16$) and nearly graduated ($n = 7$) teachers	The full potential of the master's thesis might not be met mainly because it is not always directly targeted at the practical aspects of teaching and the everyday life of schools.
Maaranen and Krokfors (2008)	Master's thesis and integration of theory and practice in teacher education	Surveys ($n = 35$) and interviews ($n = 23$) of recently graduated teachers	Teacher candidates did not experience the master's thesis as a way to integrate theory and practice. Rather, they reported that this integration took place in other courses or at other times during their programme, such as their practicum and subject didactical courses.
Toom et al. (2010)	Research-based teacher education	Surveys of teacher candidates ($n = 278$) and teacher educators ($n = 33$), interviews with teacher educators ($n = 8$)	In addition to focusing on practical teaching skills (the "basic level"), teacher education needs to pay attention to a "conceptual level" that can promote teachers' professional development.

Research theme: Programme features to ground teacher education in practice

Krokfors et al. (2006)	Multimode teacher education model	Essays and survey ($n = 31$) of teacher candidates	Candidates within the multimode programme brought new teaching methods and pedagogical tools to their work in schools, and they acknowledged that the teacher education programme tried to use their practical experiences in assignments, discussions, and reflections.
Kynäslähti et al. (2006)	Multimodal teacher education model	Small case study ($n = 3$) based on candidates' portfolios and	Candidates within the multimode programme integrated theory and practice from theory to practice, from practice to theory, and through a reciprocal integration of theory and practice. They argued that the portfolio played a vital role in

interviews

the reciprocal integration.

Research theme: The role of theory as a means to link theory and practice

Kaasila and Lauriala (2012)	Reflection and use of portfolios	Teacher candidates' portfolios during their practicum ($n = 52$)	The study of research articles seemed to deepen the candidates' reflections.
Rasmussen and Bayer (2014)	Reading lists in teacher education	Comparison of reading lists at teacher education programmes from countries that are ranked highly on international tests (i.e., Canada, Singapore, and Finland) with those of a lower-ranked country (i.e., Denmark)	While teacher candidates in Singapore and Canada were expected to read literature combining research-based and practice-based knowledge, their Nordic counterparts mostly read research-based texts. The Finnish programme stood out as the only one that included literature on research methodology.

