
Explicit modelling in teacher education

– a systematic review

Marie Falkesgaard Slot, Mathias Thorborg, Ida Elbæk, Pia Rose Bøwadt, Lene Cicilie Storgaard, Dorrit Sørensen

Resumé

Denne artikel undersøger undervisningspraksis i læreruddannelsen gennem et systematisk review af 41 empiriske studier fra Nordamerika og Europa publiceret i perioden 2000-2025. Studiet kombinerer deskriptiv kortlægning og tematisk analyse og viser, at forskningen på området er begrænset, ujævnt fordelt og metodisk snæver, idet den primært bygger på kvalitative interviewstudier af læreruddannernes egne beskrivelser af praksis. Studierne fokuserer især på eksplicit modellering, professionel viden og relationen mellem teori og praksis, men giver kun begrænset indsigt i undervisningens konkrete gennemførelse. Som et særligt fokus analyserer artiklen, hvordan modellering forstås og praktiseres på tværs af studierne. Analysen identificerer fire perspektiver på modellering: synlighed, teori og refleksion, faglig dømmekraft samt underviseridentitet. Samlet peger reviewet på et markant gab mellem beskrivelser af eksplicit modellering som undervisningspraksis og empirisk viden om dens faktiske udfoldelse. Artiklen argumenterer derfor for behovet for mere observationsbaseret forskning i læreruddannelsens undervisning.

Nøgleord

Review, undervisning på læreruddannelsen, eksplicit modellering, empiriske studier, teori og metode.

Abstract

This article addresses the scarcity of systematic, empirically grounded analyses of teaching practices in teacher education (TE) through a systematic review of 41 empirical studies conducted from 2000 to 2025 in North America and Europe. Combining descriptive mapping and thematic analysis, the review shows that the field is small, unevenly distributed and methodologically narrow, relying predominantly on qualitative, interview-based studies of teacher educators' reflective accounts. The literature focuses on modelling, professional knowledge and relations between theory and practice, but offers limited insight into enacted practice. To advance this discussion, the article analyses how modelling is conceptualised and enacted across the studies reviewed. The findings identify four lenses through which modelling is understood: visibility, theory and reflection, professional judgement and educator



Årg. 11 | nr. 2 | 2026 | 29 sider

DOI: 10.7146/lup.v11i2.165047

© 2026 forfatter(ne), CC BY-NC-ND

Studier i læreruddannelse og -profession



identity. However, the studies more often assert modelling as a teaching practice than empirically demonstrate it to be one. The review thus reveals a gap between espoused and enacted practice and hence a need for stronger didactic frameworks and more observational research.

Keywords

Review, teaching at teacher education, explicit modelling, empirical studies, theory and methodology

Introduction

Teacher education (TE) and the research into it encompass a complex and contested field shaped by political priorities, educational traditions and competing understandings of the purposes schooling serves. One persistent concern in this field relates to how teacher educators can best equip student teachers to develop their professional knowledge and practice (Leahy et al., 2025; Loughran, 2011). Despite this concern, however, the empirical knowledge available on this aim is chiefly based on teacher educators' and student teachers' self-evaluations rather than on systematic analyses of teaching as it unfolds in campus-based practice (Rakisheva & Witt, 2023; Forsström & Munthe, 2023). Accordingly, qualitative studies that rely on interviews and reflective accounts dominate the methodology used to research TE at the expense of direct observation of teaching practices (Forsström & Munthe, 2023; Graf & Rasmussen, 2025). As such, TE research often captures how participants describe and interpret teaching but not what actually happens in practice. This research gap calls for an examination of the empirical knowledge base on which teacher educators practice their profession on campus.

Answering this call, in this article we present the results from a systematic review of empirical studies looking into teacher educators' campus teaching in the period spanning 2000–2025. We conducted the review in a European and North American context but from a Northern-European perspective. Our research question is:

What characterises empirical studies of teacher educators' campus teaching between 2000 and 2025 in North America and Europe?

In addition to presenting background characteristics such as publication year and country, this review recounts how theoretical background and research methodology are explicitly used in [what?]. Expanding on this account, we

further interpret the topics and pedagogical principles identified across the included studies. Our findings indicate that the reviewed literature centres its focus on modelling, here broadly understood as the ways teacher educators enact teaching practices to make them visible to student teachers and thus transform these practices into objects of discussion and analysis. TE teaching can also be explored from psychological, cultural, organisational and relational perspectives, but since the studies included here predominantly conceptualise teaching through a modelling lens, we have focused our interpretation on modelling as an empirically recurring theme rather than as a comprehensive account of TE teaching. As such, we have elaborated how modelling is conceptualised and enacted across the included studies.

Teacher educators' teaching and modelling

Our initial search for existing review studies addressing teacher educators' own teaching practices identified six relevant reviews. For this review, we conceptualised teaching as an enacted practice comprised of the instructional activities and interactional processes through which teacher educators organise learning and manifest professional practice for student teachers (Grossman & McDonald, 2008; Grossman et al., 2009).

Against this backdrop, a consistent pattern emerged. One review conducted by Ping, Schellings and Beijaard (2018) analyses 75 studies on teacher educators' professional learning. Their findings reveal a fragmented field that lacks a clear, shared knowledge base and requires teacher educators to continuously develop their professional role. Although offering important insights into how teacher educator learning and develop professionally, this particular review fails to address what teacher educators actually do in their teaching, including the specific instructional activities, interactions and pedagogical strategies they enact in practice.

Similarly, literature on becoming a teacher educator focuses on socialisation, identity formation and professional development processes rather than on teaching itself (Swennen & van der Klink, 2008). In another review of 137 articles from a variety of countries, Dengerink, Lunenberg and Korthagen (2015) identify six professional roles a teacher educators plays: a teacher of teachers, researcher, coach curriculum developer, gatekeeper and broker.

Studies aimed at the normative and moral dimensions of practice likewise consider aspects of TE that only indirectly illuminate teaching. For



example, Willemse, Lunenberg and Korthagen (2008) show how the moral dimensions of teacher educators' practice are often implicit and difficult to articulate. Although their study reflects on and analyses teaching, the analytical focus falls on values and dispositions without systematically describing instructional activities. In a similar vein, Goodwin et al. (2014) examine what teacher educators consider to be the foundational elements of their practice and how they evaluate their preparation. This study provides valuable insight into teacher educators' knowledge base, but its heavy reliance on self-reported data precludes any systematic empirical analyses of teaching as enacted in practice.

This limitation follows broader patterns seen in teacher education research. As a recent Nordic review highlights, TE research is often organised around themes such as STEM, 21st-century skills, digital competence, collaboration, creativity, critical thinking, sustainability and democracy, but is mainly based on self-reported data, such as surveys and interviews, and generally not on systematic observations of teacher educators' teaching (Forssström & Munthe, 2023).

Taken together, the literature suggests that teaching in TE is typically addressed indirectly or through adjacent analytical categories. This approach contrasts didactic and practice-theory approaches, which emphasise the need to conceptualise teaching as enacted practice, that is, as situated, action-oriented activity unfolding in instructional settings. Indeed, broader analyses of the field have shown that TE research has focused more strongly on structures, policies and learning processes than on instructional practice itself (Grossman & McDonald, 2008; Zeichner, 2010), thus exposing a significant research gap. To the best of our knowledge, no systematic review has explicitly and analytically examined teacher educators' teaching as enacted practice, understood as empirically documented instructional activities and interactional patterns across contexts. Instead, the existing body of research lacks any systematically synthesised knowledge about what takes place in teaching situations.

Research has yet to explore TE teaching as a generic professional practice entailing instructional activities and practices that cut across specific subject didactics and policy agendas. It is this gap that we seek to help close.

Review method

To answer our research question, we conducted a systematic review (Newman & Gough, 2020) aimed to identify empirical studies on teacher educators' campus teaching. We chose to do a systematic review in order to provide a transparent process and structured synthesis of existing research in a field characterised by conceptual diversity and fragmented empirical approaches. We broadly followed Newman and Gough's (2020) guidelines in developing our review design, search strategy and selection criteria, coding procedures and a focused analysis of salient conceptual frameworks. Consequently, we have not aimed to identify empirically grounded results and aggregate them but rather to follow the logic of configurative synthesis and thus include a certain variety of studies that would enable us to map the field. Our review aims to clarify the applied research methods and conceptual frameworks of the selected studies and thus to contribute to an overview of the research field.

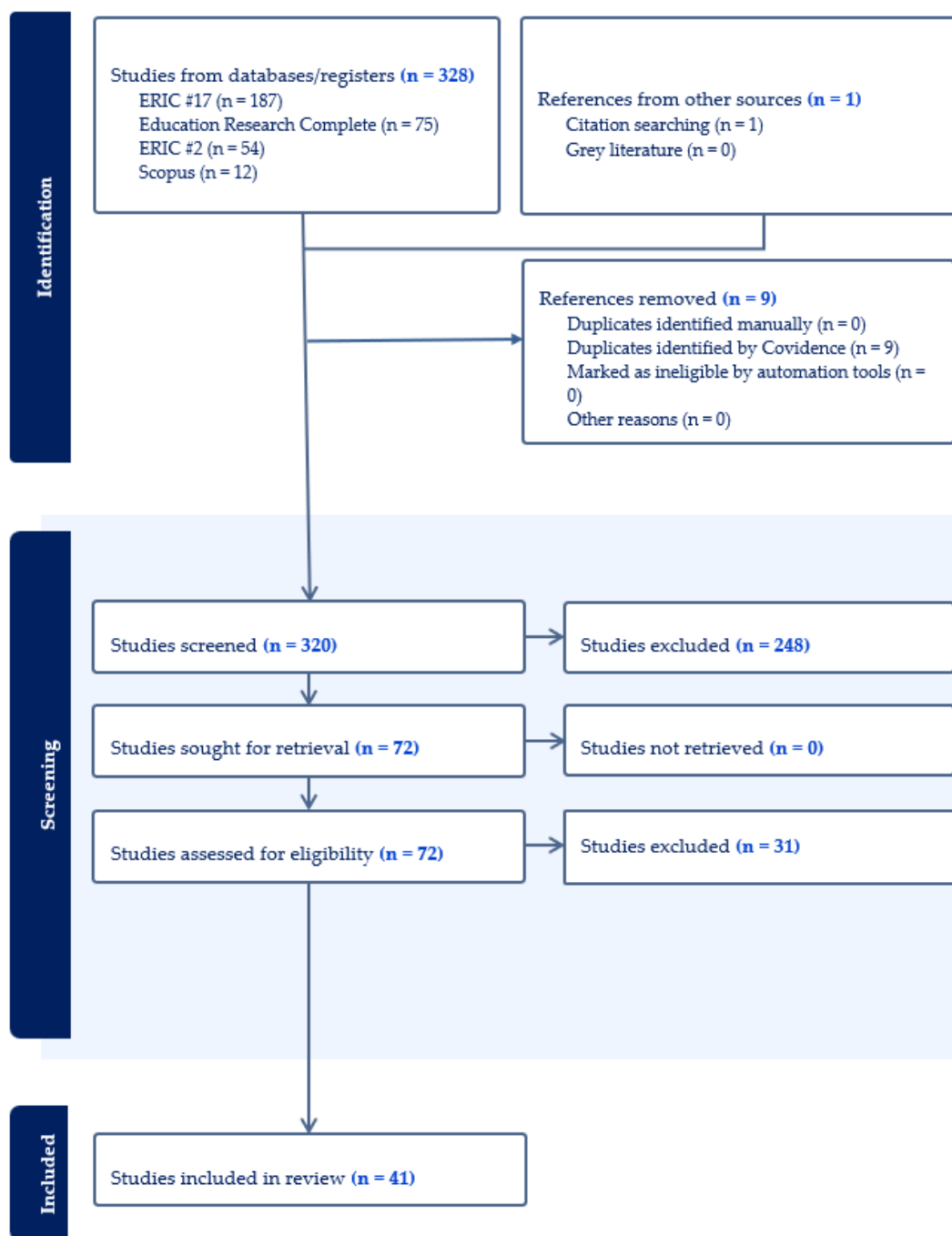
Search strategy and selection process

We conducted the literature search on 12 June 2025 in the salient databases ERIC, Education Research Complete and Scopus. To maintain the quality of the studies to be included, we solely looked for peer-reviewed journal articles published between 2000 and 2025 in English. In view of our Northern-European perspective, we also included studies in Scandinavian languages, as some relevant studies may not appear in English. We narrowed/specified our search to the following salient journals: *European Journal of Teacher Education*, *Teaching and Teacher Education*, *Journal of Education for Teaching*, *Acta didactica*, *Nordic Studies in Education*, and *Studier i læreruddannelse og -profession*. [Studies in Teacher Education and the Teaching Profession].

Due to varying terminologies, different languages and the absence of a specific, common expression usable as a keyword for teacher educators' campus teaching, we had to apply a range of keywords around the phenomena in focus. In a series of consecutive searches, we used and combined the following content keywords with both AND and OR: 'teacher education', 'teacher training', 'teaching activit*', 'teacher educator*', 'teacher educator* identity', 'professional identity', 'professional development', 'modelling', 'role model' and the Scandinavian-language equivalents. Methodologically, we followed the PRISMA guidelines (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) (Page et al., 2021). We imported all identified records (N=328) as well as one relevant study by Swennen et al. (2008), which

did not appear in our structured search, into the reference management software Covidence and removed any duplicates (N=9). For an overview of the identification and screening process, see Figure 1.

Figure 1: Overview over identification and screening process



Furthermore, two reviewers conducted an independent and blind screening of all 320 studies' titles and abstracts, using the predefined inclusion and exclusion criteria shown in Table 1. Particular note should be taken of the exclusion criteria concerning the empirical bases, the quantitative studies and the subject-specificity (marked in bold).

Since we were unable to precisely target the initial search terms, these criteria helped us to identify studies that deal directly and substantially with teacher educators' teaching practices.

Table 1: Inclusion and exclusion criteria

Criterion	Inclusion	Exclusion
Publishing Year	Published 2000–2025	Published before 2000
Language	English or Scandinavian languages	Other languages
Peer Review Status	Peer-reviewed journal articles	Non-peer reviewed publications (e.g., reports, theses, conference papers)
Population: In-Service Teacher Educators	Studies involving teacher educators in campus-based TE contexts; empirical studies	Studies describing intended teaching, theoretical models or ideal principles without empirical data
Teaching Context	Includes student teachers' practicum teaching as part of TE	Studies of certified teachers' teaching in primary/secondary schools
Empirical Basis	Based on empirical data from teaching in TE	Studies of curricula, frameworks or designs without empirical implementation
Quantitative Studies	Quantitative research that provides direct empirical insight into teaching practices	Quantitative studies lacking insight into authentic teaching (e.g., macro-level coherence studies)
Subject-Specific Studies	Discipline-specific studies on campus teaching with generic significance	Studies focusing only on disciplinary theory or subject content
Derivative/Leadership Studies	—	Leadership, organisational, or institutional studies not examining concrete teaching
Geographical Scope	Studies from Europe or North America; global studies included if non-European/North American data $\leq 25\%$	Studies primarily based in regions outside Europe/North America with different educational systems
Meta-/Psychometric Studies	Meta-analyses or psychometric studies grounded in primary empirical data from TE	Meta-studies relying solely on secondary data or theoretical synthesis



Intended for sensitivity rather than specificity, this initial screening prioritised the inclusion of papers rather than their exclusion. Nevertheless, the screening served to exclude 248 studies. We retrieved the remaining 72 to clarify and resolve the disagreements and open questions with a third reviewer (full-text screening). This full-eligibility assessment process served to exclude another 31 studies, thus leaving 41 eligible for full-text analysis.

Charting data and analysis

In the next step, our group of six researchers developed a structured coding framework to enable the descriptive and interpretative registration of characteristics across the 41 studies. The group/We collaboratively tested the framework, refining it within a subset of the selected studies until agreement was reached. One group member then carried out each study's final coding. The framework included descriptive codes for publication year; the countries in which empirical data were collected; declared research methods, including research design, types of data and informants; and the central background theories referenced in each study. The interpretative coding was also aimed to extract and condense the studies' key topics. To enhance consistency across the six coders, this portion of the coding process received particular attention during the piloting of the framework. In the descriptive mapping process, one topic relating to teacher educators' teaching practices proved to be especially prominent: modelling as a pedagogical principle.

Thus, instead of addressing the full range of characteristics concerning topics and pedagogical principles, we have elected to present a focused narrative synthesis of the different conceptualisations and the report practices of modelling. Analysis in this instance means a process of coding and categorising recurring modelling conceptualisations and practices across the material. We present and elaborate the subcategories of the main characteristics outlined above in the relevant sections of this article.

Results

To what characterises empirical studies of teacher educators' teaching 2000 to 2025 in North America and Europe, we present our results in two steps. First, we descriptively map the characteristics of the selected studies in order to discuss emerging patterns. This mapping reflects the types of studies that substantially deal with teacher educators campus teaching. Second, we present and discuss our findings regarding the tendency in studies on teacher

educators' campus teaching to focus on the conceptual and enacted variety of modelling. Throughout the next sections? we reference the reviewed studies with a study number, and the full reference list can be found in the appendix.

Year of publication and geography

Table 2 provides an overview of the years the studies were published and the countries in which their empirical data were collected.

Table 2: Year of publication and geography

Category	Study No.		N
Year of publication	2000-2005		0
	2005-2009	11, 24, 26-28, 30, 37	7
	2010-2014	1, 5, 6, 8, 9, 12, 15, 16, 29, 40	10
	2015-2019	3, 4, 7, 22, 31-33, 35, 39	9
	2020-2025	2, 10, 13, 14, 17-21, 23, 25, 34, 36, 38, 41	15
Geography (Note that Study 2, 10 and 35 are trans-national)	Norway	13-15, 17-19, 21, 22, 29, 31, 32, 34, 40	13
	Netherlands	3-5, 10, 24, 26-28, 36, 37, 41	11
	Ireland	10, 25, 33, 35	4
	Finland	2, 34, 38	3
	USA	20, 30, 35	3
	England	11, 12	2
	Sweden	16, 23	2
	Canada	6, 8	2
	Remaining countries	(DK: 23), (Turkey: 2), (Israel: 10), (Belgium: 39)??	4

There are no studies in the first five years of our review, but the overall number of studies appears to increase towards the final five-year interval (15 studies). Although the number of studies is still small, the incremental increase points to a modestly growing interest in studies focused on teacher educators' teaching. Geographically, most of the studies have been done in Norway and the Netherlands. Moreover, considering all the countries in North America and Europe not represented, the geographical distribution is remarkably uneven. Simply put, teacher educators' teaching has not been a widespread subject of empirical studies. From our Northern European per-

spective, the disparity between Norway, Finland, Sweden and Denmark is especially surprising.

Research design, types of data and informants

Table 3 displays our results concerning the studies' methodology in terms of research design, types of data and types of informants.

Table 3: Overview of methods and informants

Dimension		Study No.	N
Research design	Case study	3-9, 12, 16, 20, 22, 25-27, 30, 31, 33, 36, 37, 39, 40, 41	22
	Comparative	1, 2, 3, 10, 13, 26, 32, 34, 35, 40	10
	Longitudinal	11, 12, 25	3
	Design-Based Research	14	1
	Action Research	-	0
	Other	15, 17, 18	3
Data type	Interview	5-13, 21, 22, 24, 26-29, 31, 32, 35, 36	21
	Document study	1, 3, 4, 14, 19, 23, 38	7
	Artefact study	15, 17, 20, 34, 39, 41	6
	Observation	16, 25, 26, 27, 30, 32, 33, 37	8
	Survey	18, 40	2
	Comparative study	2	1
Informants	Teacher educators	2, 3, 4, 5, 6, 8, 10-12, 15-18, 20, 22-28, 30-37, 39	29
	Teacher students	5, 6, 13, 16, 20-22, 29-33, 38, 40	14
	In-service teachers	16, 22, 32, 34	4
	Mentors and other actors	4, 14, 19, 23, 26	5

When it comes to research design, half the studies on teacher educators' teaching use case studies, which may indicate that such studies are concerned with context-specific and in-depth analysis. A quarter of the studies include a comparative design. For example, teacher educators in different countries might define and compare their roles and knowledge base as teacher educators, explore differences in their professional development practices and make suggestions for better professional learning opportunities. On the other hand, the studies rarely entail longitudinal designs and design-based

research. However, these two study methods typically concern collaborative, experimental, iterative and time- and context-related development that could well benefit an investigation into teacher educators' teaching practices. This finding, along with the absence of action research, indicates the low degree to which participatory approaches and approaches concerned with developing teacher educators' teaching practices are deployed.

As for data-driven types of studies, interviews are by far the most common. Researchers often use interviews to gain insight into informants' perspectives and reflections, but more rarely use methods aimed at directly capturing teaching practice, such as observations and analyses of teaching artefacts. An overview of the distribution of informants across the included studies reveals a clear preponderance of teacher educators. Student teachers appear in a smaller, albeit still substantial, number of studies, whereas in-service teachers are represented in only four studies. Finally, the category 'other actors' comprises five studies and includes, among others, teachers who serve as school-based mentors supervising student teachers during practicum. Overall, this distribution suggests that TE research centres on teacher educators' perspectives, with those of student teachers and, especially, practitioners being less prominently represented.

Theoretical foundation

To characterise the studies' theoretical foundations, we defined five broad types of theoretical approaches: educational theory, learning theory, posthuman and narrative theory, didactic theory and Bildung theory. By our definition, educational theory is a cluster of theories drawing on sociological, critical and pragmatic educational theory as well as curriculum-oriented perspectives on education. This category comprises scholars such as Bernstein, Young, Shulman, Dewey and Freire. Learning theory primarily encompasses sociocultural approaches to learning, drawing on scholars such as Vygotsky or Lave and Wenger. Posthuman and narrative theory refers to more recent theoretical developments addressing the relational, material and identity-oriented perspectives represented by scholars such as Haraway, Deleuze or Ricoeur. Didactic theory was defined in relation to continental European traditions focused on analysing teaching content and structure, commonly associated with Wagenschein, Klafki or Hopmann. Finally, Bildung theory encompasses a philosophical approach to educational questions concerned with subject formation and educational purpose. Studies based on this

theory draw on the philosophical contributions of Klafki, Benner and Biesta, among others.

For each study, we determined its fundamental theoretical approach by identifying which theory most directly underpinned the study's research question. Table 4 provides an overview and categorisation of these theoretical approaches.

Table 4: Theoretical approaches

Dimension		Study No.	N=41
Type of theory (primary)	Educational theory	1, 2, 4, 7, 10, 13, 14, 17, 19, 21, 24, 28, 31, 34, 35, 37, 38, 39, 40	19
	Learning theory	3, 5, 6, 8, 9, 11, 16, 26, 29, 30, 36, 41	11
	Posthuman and narrative theory	1, 15, 18, 20, 25	5
	Didactic theory	12, 27, 32, 33	4
	Bildung theory	22, 23	2

Of the five approaches, pedagogical and learning theory clearly predominate, together accounting for more than two-thirds of the included studies, while approaches based on narrative, didactic and educational traditions are significantly less common. This distribution of approaches suggests that research into TE teaching practices primarily occurs through broad, generalized theoretical lenses. This finding re-emerges later in this article when we note that the studies [appear to] use overarching educational theories rather than didactic theory to conceptualise modelling through teaching practices. Importantly, however, the Anglo-Saxon tradition makes no sharp distinction between pedagogical and didactic theory as the continental tradition does. Nevertheless, didactic theory frequently appears as a secondary theoretical source, followed by educational theory and pedagogical theory.

Study Topics

Based on our in-depth reading and interpretation of the selected studies on teacher educators' campus teaching, Table 5 shows the main topics we identified in our abductive analytical process. As we allowed for more than one topic per study, the subcategories are non-exclusive.

Table 5: Predominant topics identified

Topics	Study No.	N
Teaching and learning activities on campus	2, 3, 5-7, 10, 12-14, 16-18, 20, 21, 23, 24, 26, 27, 30-33, 36-38	25
Subcategory: Modelling	2, 3, 5-7, 10, 12-14, 17, 18, 20, 21, 23, 24, 26, 27, 30, 32, 36, 37	21
Subcategory: Other activities	13, 16, 21, 23, 30, 32, 33, 38	8
Forms of knowledge	1, 2, 5, 11, 12, 14, 16, 18, 19, 21-23, 25, 26, 28, 30, 31, 34, 40	19
Teacher educators' professional development	2-4, 8-12, 17, 18, 25, 27, 28, 35, 36, 37, 40	17
Altering education	14, 22, 28, 29, 34, 40, 41	7
Curricula studies	1, 15, 19	3
Standards for teacher educators	5, 24, 39	3
Research-based TE	1, 38	2

Twenty-five studies deal with teaching and learning activities on campus. Twenty-one of these focus on modelling, especially as a means of helping student teachers see pedagogical and didactic reasoning. Eight studies address other teaching and learning activities, including new practices linked to representations of practice through video and artefacts in campus-based teaching (21), the development of educational judgement (30, 23) and criteria-based assessment in practicum contexts (16).

Alongside modelling, almost half of the studies thematise the key issue of differing forms of teaching knowledge, an issue that reflects the need to continually attend to how various types of knowledge are articulated, mobilised and related to teaching practices. The issue also touches on the theory and practice discussion. Seventeen studies discuss teacher educators' professional development, examining teaching from the perspective of teacher educators across different roles. These are the predominant topics we identified.

We further identified the following topics related to teacher educators' campus teaching: seven studies highlight the interplay between campus-based teaching and field practice, as well as concepts such as partnerships, third space and theory-practice relations. Three studies address standards for teacher educators, focusing on pedagogical principles, didactic approaches, coherence in programs and theories of practice. Three studies connect to curricula studies examining the organisation and orientation of TE pro-



grammes. Finally, two studies discuss the relationship between research-based and practice-oriented curricula.

Summarising

Five patterns can be discerned in empirical studies of teacher educators' campus teaching (2000–2025) in North America and Europe. First, the field has grown gradually but remains limited, with an uneven geographical distribution of studies concentrated in Norway and the Netherlands. Next, the field is methodologically dominated by qualitative case studies and interviews, with observational, longitudinal, and intervention studies remaining rare. Empirically, the field relies heavily on teacher educators' reflective accounts, thus limiting multi-perspectival analyses. Theoretically, studies mainly draw on general educational and learning theories, seldom using explicit didactic frameworks. Thematically, research focuses attention on modelling, professional knowledge, educator development and theory-practice relations. As modelling is a recurring and analytically central principle, in the next section we examine how it is conceptualised and enacted in teacher educators' teaching practices.

Focused analysis of modelling

Conceptualisations of modelling

Across the reviewed studies, modelling emerges as a central yet conceptually heterogeneous principle, primarily understood as a means of making teaching visible, interpretable and transferable to student teachers. At its core, modelling is framed as a second-order pedagogical practice whereby teacher educators not only teach but also teach about teaching. They achieve this practice by rendering their pedagogical and didactic reasoning explicit (Cochran-Smith & Lytle, 1990; Loughran & Berry, 2005). Modelling thereby becomes a mediating practice between theory and practice, intended to help develop students' professional judgement and actionable knowledge. Several studies differentiate types of modelling or relate it to adjacent concepts (5, 13, 20, 26, 27, 37), which indicates that it has been shaped through multiple lenses rather than constituted as a singular construct. This multidimensionality, which appears to be the decisive feature of modelling, can be separated into four strands of conceptual understanding/Four categories of conceptual understanding can be distinguished by what seems to be the decisive feature of modelling.

The first conceptualisation locates modelling in intentional visibility and explicitness. Lunenberg and Korthagen (26) and Lunenberg et al. (27) distinguish implicit from explicit modelling, where implicit modelling means acting as a role model without explicating one's choices, while explicit modelling renders instructional decisions, alternatives and underlying rationales transparent. In this instance modelling is understood as something that demonstrates a teaching practice for the express purpose of promoting student teachers' professional learning. It also reflects a dual ambition: to shape individual teachers' beliefs and practices and to contribute to the development of educational practice more broadly (27). Lunenberg et al. (27) further differentiate explicit modelling according to how theory is made visible and how student teachers are supported in connecting observed practice to their own teaching. Swennen et al. (37) formulate the same requirement as congruent teaching, which consists of modelling, providing meta-commentary on one's own choices and connecting those choices to relevant theory. The shared assumption has negative as well as positive aspects, which is to say that without such articulation, student teachers may not recognise modelling as modelling, thereby missing a learning opportunity (26, 13).

A second conceptualisation positions modelling as relational to theory and reflection. Here, modelling is defined less by what teacher educators show than by how they subsequently make the modelling available for analysis. Bronkhorst et al. (5) extend the concept from modelling teaching to modelling learning, arguing that reflection in teacher education must be anticipatory and prospective as well as retrospective. Naesheim-Bjørkvik et al. (32) show the same anticipatory movement in the Lesson Study cycle, during which teaching is predicted, observed and analysed collaboratively. Morine-Dersheimer (30) similarly directs attention to how a teacher educator models knowledge-acquisition processes rather than teaching techniques. Jensen and Blikstad-Balas (21) approach the teaching-learning relation from the side of representation, working with artefacts and video to enable practice to be analysed on campus. In Boei et al. (3) and Schipper et al. (36), professional learning itself is modelled: teacher educators' model for student teachers how collaborative inquiry can form part of a teacher's ordinary practice. Across these studies, modelling links theoretical knowledge with enacted teaching by making the latter interpretable.

A third strand of conceptualisation emphasises modelling as exemplarity and judgement formation. Drawing on the tradition of exemplarity, Korsgaard and Clausen (23) understand teaching in teacher education as



a process of enacting examples that invite interpretation rather than reproduction and thus cultivate pedagogical judgement. This conceptualisation differs from the first because it is sceptical of explication: an example works by remaining open, and an instrumental relation to modelling risks limiting student teachers' capacity to develop their teaching independently. This is the only conceptualisation in the material to treat an example's indeterminacy as productive rather than as deficient, and the only one advanced on theoretical rather than empirical grounds.

The fourth strand frames modelling as a dimension of the teacher educator's professional practice and identity. What is at stake concerns how the teacher educator occupies and understands the role of teaching teachers. In this strand modelling emerges as an expectation attached to the role rather than as a technique deployed within a lesson (2, 7, 12, 14). As such, it is codified in professional standards that require teacher educators to practice what they preach (24). Related concepts specify the same position from different angles: second-order teaching emphasises that teaching about teaching is itself the object (2, 10, 20); the metaphor of orchestration captures the complexity of coordinating teaching, reflection and collegial learning (17); and studies of becoming a teacher educator show modelling to be an ongoing dimension of professional formation rather than a stable competence (18, 36).

Finally, some studies position modelling as central but not itself sufficient for student learning. The potential of modelling is linked to elements such as reflection and engagement with theory (13, 20, 21, 32), for which reason it can appear to be strongly emphasised but only partially empirically specified.

In sum, modelling can be conceptualised as a multifaceted construct encompassing explicit pedagogical communication, theory-practice connections, exemplarity and a core dimension of teacher educator professional identity. However, these conceptualisations do not provide systematic insight into how modelling is enacted in practice. As the mapping shows, the field relies heavily on self-reported data, with few observational studies having been undertaken. To shift the analysis from conceptualisations to enactments, we therefore examine what empirical studies have documented about modelling in practice.

Enactments of modelling

Enactments of modelling are sparsely documented across the material, which, importantly, only includes a limited number of observational studies of actual teaching. Still, some examples of how modelling is enacted in TE

exist, a selection of which we will present in this section. We selected these particular examples because they aptly represent the modelling repertoires of teachers as well as their understanding of and reflections on the modelling concept.

An initial finding concerns the discrepancy between what teacher educators say they do and what is observable in their teaching. Lunenberg and Korthagen (26) compared ten case studies of teacher educators with nineteen case studies of secondary school teachers, observing each participant while teaching on two occasions, their focus being on reflection and congruent action. They concluded that modelling requires considerably more attention from teacher educators, which they summarised as teachers' having mastered 'talking the talk' but not sufficiently 'walking the walk' (26, p. 18). They particularly criticise the failure to model instructional decisions on a theoretical basis. Reflecting on this failure, the authors hypothesise that many teacher educators lack the competencies needed to break the cycle whereby teachers educated in a teacher-directed manner go on to educate in the same way (26, p. 18). Related observations concern limited competence to discuss pedagogical choices with student teachers and a tendency to omit modelling of theoretical considerations.

In studies that rely on teacher educators' own accounts, modelling is described in markedly different terms. In the interview-based studies by Bronkhorst et al. (5) and Boei et al. (3), for example, teacher educators report engaging in practices such as posing meta-reflective questions about teaching situations, revisiting instructional choices and inviting student teachers to analyse what has taken place. In these accounts, informants primarily describe modelling as reflecting teaching rather than demonstrating theoretical grounding. The same studies also indicate the limits of this practice-oriented understanding of modelling. Integrating theory, teacher educators' practical theories and personal experience into a personal theory of practice is described as being the core of meaning-oriented learning (5, 30, 32), yet the examples given by the educators suggest that such integration is not consistently achieved. When a teacher educator explains that an assignment suits 14-year-olds but is too demanding for younger pupils, the judgement is offered without theoretical grounding (5). Making that connection explicit, the authors argue, could deepen student teachers' professional learning (3, 5). Theoretical perspectives thus appear to remain implicit.

Korsgaard and Clausen (23) develop the didactic implications of this tendency conceptually rather than empirically, arguing that didactic considera-



tions may remain unarticulated even to the teacher educators themselves. As a result, examples fail to function as intended, thus leading modelling to operate within a double didactic tension that both enables and constrains student teachers' engagement with practice.

Student teachers perceive modelling to be enacted unevenly. In DeLuca's study (6), student teachers point to contradictions between what teacher educators advocate and what they enact, with one student teacher noting that some teachers do not practise what they preach (6). Modelling is thus not only unevenly enacted but also unevenly recognised. Conversely, students report that modelling as an explicit focus of teaching is consequential. In Haslekås and Kittilsen's study (13), student teachers who took part in a documented sequence of explicitly modelled inquiry-based science teaching described learning more in a single day than in comparable earlier teaching, and they expected to remember the experience. Jensen and Blikstad-Balas (21) report comparable responses to a campus-based course working with video and other artefacts of practice under the heading of learning to notice. In this course, student teachers emphasised the value of concrete representations of teaching in connecting campus and practicum. Together, these studies suggest that explicit modelling supports learning by making teaching visible and interpretable across institutional contexts.

Finally, as previously mentioned, from a methodological perspective very few studies across the material document modelling through the direct observation of teaching.

Most findings across the material derive from interviews, self-reports and written reflections. Consequently, empirical insight into how modelling unfolds in real time remains limited, and the quality or effects of modelling practices difficult to assess. This gap between a strong conceptual emphasis and weak empirical specification is itself among the review's principal findings.

Discussion

Answering our research question 'What characterises empirical studies of teacher educators' campus teaching between 2000 and 2025 in North America and Europe', we conclude that research on campus-based teacher education remains limited, unevenly distributed and methodologically homogeneous and depends on teacher educators' reflective accounts. Although primarily oriented at modelling, professional knowledge and theory-practice relations,

the TE field largely relies on general educational theories, thus offering limited multi-perspectival and practice-based insights. Modelling seems to be a key concept but nevertheless tends to be emphasised conceptually rather than empirically documented. We further find that modelling arises as a distinctive topic associated with teaching in teacher education, as the topic describes how teacher educators manifest teaching as both a practice and an object of reflection for student teachers. In this sense, modelling points to a core feature of second-order teaching (27) whereby pedagogical and didactic choices are rendered available for interpretation, discussion and professional judgement (5, 26, 37). However, understandings of modelling remain broad, which may limit its analytical strength. If modelling is to clarify what is specific to teacher education, it cannot remain a general term for good teaching or reflection but must also be developed more explicitly within a didactic theory of teacher education, one that clarifies relations between content, form, purpose and exemplification.

A central implication of our review is that diverse conceptualisations of modelling need to be consolidated into a stronger didactic framework, as the issue is not a lack of concepts, but the absence of a shared didactic language. This finding is reinforced by the broader finding that learning and educational theory is the primary analytical framework for empirical research on TE teaching. In contrast, didactic theory is rarely used in this context, thus making it difficult to develop a cumulative understanding of modelling as a didactic principle.

To function as a robust analytical concept, modelling must be anchored in core didactic questions, including what is selected as exemplary, how it is staged and how theory-practice relations are organised. Achieving this anchoring requires attention to be focused on the concrete didactic work of teacher educators, including how they select, sequence and represent content as well as enact rather than merely articulate modelling (Klafki, 2000; Hopmann, 2007; Shulman, 1987). A key task here is to organise conceptual plurality within a stronger framework that enables distinctions and clarifies the contribution modelling makes.

Empirical research should drive this theoretical development, as a central finding of our review is the discrepancy between a strong conceptual emphasis on modelling and a weak empirical basis for understanding its enactment. Although modelling is widely highlighted, few studies analyse what teacher educators do in practice. Instead, the field remains dominated by interviews, portfolios and self-reported reflections, with few observa-



tional studies. This impedes stronger understandings of modelling, as concepts require both theoretical distinctions and a close study of practice. Future research should therefore examine modelling as an enacted practice, for instance, by connecting it to practice-based research on representations of practice, artefacts, rehearsals and video (Grossman et al., 2009; Jensen et al., 2018; Graf & Rasmussen, 2025; Slot et al., 2023). Empirical work needs to be done to show how modelling is recognised, interpreted and transformed in concrete teaching situations.

Conclusion

This review shows that empirical research on teaching in TE still offers limited insight into teaching as enacted practice. Across the reviewed studies, teaching tends to be addressed in more conceptual, reflective and normative terms than through detailed analyses of concrete teaching situations. Within the TE field, modelling is a particularly prominent research focus. The reviewed studies consistently highlight modelling as central to teacher educators' work, especially when it comes to making pedagogical and didactic choices visible to student teachers, yet they conceptually emphasise modelling more often than empirically document it. As a result, still little is known about how modelling is enacted in practice and recognised and interpreted in TE. Future research should therefore examine modelling and other core teaching practices by empirically studying TE teaching more closely. Conducting such research would both strengthen the field's empirical foundation and help to develop a more explicit didactic language for analysing teaching in TE.

Limitations

Several limitations must be acknowledged. First, the review is based on a defined search strategy across selected databases and is limited to peer-reviewed journal articles published between 2000 and 2025 in English or Scandinavian languages. Relevant studies published in other languages, formats or databases may therefore not have been included. In particular, the exclusion of German- and French-language literature means that important continental traditions in TE research may be underrepresented. Second, the review was designed to identify empirical studies of TE teaching more broadly rather than to capture the full range of subject-specific or discipline-

specific didactic research. Therefore, studies focused primarily on subject didactics may be underrepresented, even though modelling may take different forms in subject-specific contexts.

Contribution statement

Marie Falkesgaard Slot, Mathias Thorborg, Ida Elbæk, Lene Cicilie Storgaard, Pia Rose Bövadts and Dorrit Sørensen designed the review study, developed the coding manual and carried out the abstract reading and full-text reading. Pia Böwadts and Lene Storgaard managed the review process in Covidence. Marie Falkesgaard Slot and Mathias Thorborg analysed the results and wrote the manuscript. During the writing of the review, ChatGPT (version 5.3) was used for language improvements. Marie Falkesgaard Slot has been responsible for implementing the project. All participants have consented to its submission to the journal and have approved the final version of the manuscript.

Acknowledgments

We owe a special thank-you to research librarian Trine Azbi for helping with the necessary search work.

Ethical statement

The manuscript was not developed in response to ethical issues associated with the study.

Conflict of interest

Self-financed study. There are no conflicts of interest.

References

- Cochran-Smith, M., & Lytle, S. L. (1990). Research on teaching and teacher research: The issues that divide. *Educational Researcher*, 19(2), 2–11.
- Dengerink, J. & Lunenberg, Mieke & F. Korthagen, (2015). The Professional Teacher Educator: Six Roles. *Beiträge zur Lehrerinnen- und Lehrerbildung*. 33. 334-344.
- Forsström, S., & Munthe, E. (2023). What characterizes Nordic research on initial teacher education: A systematic scoping review. University of Stavanger. <https://doi.org/10.23865/nse.v43.5588>

- Goodwin, A. L., Smith, L., Souto-Manning, M., Cheruvu, R., Tan, M. Y., Reed, R., & Taveras, L. (2014). What should teacher educators know and be able to do? Perspectives from practicing teacher educators. *Journal of Teacher Education*, 65(4), 284–302. <https://doi.org/10.1177/0022487114535266>
- Grossman, P., & McDonald, M. (2008). Back to the future: Directions for research in teaching and teacher education. *American Educational Research Journal*, 45(1), 184–205. <https://doi.org/10.3102/0002831207312906>
- Grossman, P., Hammerness, K., & McDonald, M. (2009). Redefining teaching, re-imagining teacher education. *Teachers and Teaching: Theory and Practice*, 15(2), 273–289.
- Graf, S. T., & Rasmussen, H. F. (2025). Student Teachers' Noticing of Teaching Quality in Video-Enhanced Campus Teaching. *Education Sciences*, 15(6), 739. <https://doi.org/10.3390/educsci15060739>
- Hopmann, S. (2007). Restrained teaching: The common core of Didaktik. *European Educational Research Journal*, 6(2), 109–124. <https://doi.org/10.2304/eej.2007.6.2.109>
- Jenset, I. S., Klette, K., & Hammerness, K. M. (2018). Grounding teacher education in practice around the world: An examination of teacher education coursework in teacher education programs in Finland, Norway, and the United States. *Journal of Teacher Education*, 69(2), 184–197. <https://doi.org/10.1177/0022487117728248>
- Kansanen, P., & Meri, M. (1999). The didactic relation in the teaching-studying-learning process. *TNTEE Publications*, 2, 107–116.
- Klafki, W. (2000). The significance of classical theories of Bildung for a contemporary concept of Allgemeinbildung. In I. Westbury, S. Hopmann, & K. Riquarts (Eds.), *Teaching as a reflective practice: The German didaktik tradition* (pp. 85–107). Lawrence Erlbaum Associates.
- Korthagen, F. A. J. (2016). Pedagogy of teacher education. In J. Loughran & M. L. Hamilton (Eds.), *International handbook of teacher education* (pp. 311–346). Springer Singapore. https://doi.org/10.1007/978-981-10-0366-0_8
- Korthagen, F., Loughran, J., & Russell, T. (2006). Developing fundamental principles for teacher education programs and practices. *Teaching and Teacher Education*, 22(8), 1020–1041. <https://doi.org/10.1016/j.tate.2006.04.022>
- Leahy, K., Calderón, A., O'Meara, N., MacPhail, A., & O'Flaherty, J. (2025). Navigating times of change through communities of practice: A focus on teacher educators' realities and professional learning. *Teaching and Teacher Education*, 156, 104925. <https://doi.org/10.1016/j.tate.2025.104925>
- Loughran, John & Berry, Amanda. (2005). Modelling by teacher educators. *Teaching and Teacher Education*, 21, 193–203. <https://doi.org/10.1016/j.tate.2004.12.005>
- Loughran, J. (2011). On becoming a teacher educator. *Journal of Education for Teaching*, 37(3), 279–291. <https://doi.org/10.1080/02607476.2011.588016>
- Loughran, J. (2013). *Developing a pedagogy of teacher education: Understanding teaching & learning about teaching*. Routledge. <https://www.taylorfrancis.com/books/mono/10.4324/9780203019672/developing-pedagogy-teacher-education-john-loughran>
- Lunenberg, M., Korthagen, F., & Swennen, A. (2007). The teacher educator as a role model. *Teaching and Teacher Education*, 23(5), 586–601. <https://doi.org/10.1016/j.tate.2006.11.001>
- Newman, M., & Gough, D. (2020). Systematic reviews in educational research: Methodology, perspectives and application. *Systematic Reviews in Educational Research*, 64(3), 3–22.
- Ping, C., Schellings, G., & Beijard, D. (2018). Teacher educators' professional learning: A literature review. *Teaching and Teacher Education*, 75, 93–104. <https://doi.org/10.1016/j.tate.2018.06.003>
- Rakisheva, Aigul & Witt, Allison. (2023). Digital competence frameworks in teacher education-A literature review. *Issues and Trends in Learning Technologies*, 11, 10.2458/itlt.5205.

- Slot, M. F., Hjarnø, G., Reng, M., & Moe, C. B. (2022). Learning to notice og brug af videooptaget undervisning i læreruddannelsen. *Studier i Læreruddannelse og -Profession*, 7(2), 21. <https://doi.org/10.7146/lup.v7i2.132892>
- Shulman, L. S. (1987). Knowledge and teaching: Foundations of the new reform. *Harvard Educational Review*, 57(1), 1–22.
- Swennen, A., Lunenberg, M., & Korthagen, F. (2008). Preach what you teach! Teacher educators and congruent teaching. *Teachers and Teaching: Theory and Practice*, 14(5–6), 531–542. <https://doi.org/10.1080/13540600802571387>
- Swennen, A., & van der Klink, M. (Eds.). (2008). *Becoming a teacher educator: Theory and practice for teacher educators*. Springer.
- Swennen, A., Jones, K., & Volman, M. (2014). Teacher educators: Their identities, sub-identities and implications for professional development. In *The professional development of teacher educators* (pp. 138–155).
- Willemse, M., Lunenberg, M., & Korthagen, F. (2008). The moral aspects of teacher educators' practices. *Journal of Moral Education*, 37(4), 445–466. <https://doi.org/10.1080/03057240802399269>
- Zeichner, K. (2010). Rethinking the connections between campus courses and field experiences in college- and university-based teacher education. *Journal of Teacher Education*, 61(1–2), 89–99. <https://doi.org/10.1177/0022487109347671>

Appendix: Literature in review study

The applied search strings

Table 6: ERIC

#	ERIC / 10.april 2025	Antal hits	Kommentar
1	"teacher educator*" AND "professional learning"	293	AB (abstracts) Peer review English
2	(SO "European journal of Teacher Education" OR "Teaching and Teacher Education" OR "Journal of Education for Teaching") AND (AB "teacher educator*" AND AB "professional learning")	56	Peer review English
#	ERIC / 25.april 2025	Antal hits	Kommentar
3	SO (SO "European journal of Teacher Education" OR SO ("Teaching and Teacher Education") OR SO "Journal of Education for Teaching") AND AB ("teacher education" OR "teacher educator" OR "professional development" OR "teacher educator identity" OR modelling OR "teacher activit*")	1189	År: 2000- Type: peer-reviewed
#	ERIC / 29 april 2025	Antal hits	Kommentar
4	SO (SO "European journal of Teacher Education" OR SO ("Teaching and Teacher Education") OR SO "Journal of Education for Teaching")	4269	

5	AB "teacher education"	40,565	
6	AB "teacher educator"	1896	
7	AB "teacher educator identit*"	21	
8	AB "professional development"	45,928	
9	AB modelling*	29,713	
10	AB "teacher activit*"	378	
11	AB "teacher education" OR AB "teacher educator*" OR AB "teacher educator identit*"	47,956	
12	AB ("teacher education" OR "teacher educator*" OR "teacher educator identit*") AND SO ("European journal of Teacher Education" OR "Teaching and Teacher Education" OR "Journal of Education for Teaching")	1580	
13	AB ("teacher education" OR "teacher educator*" OR "teacher educator identit*") AND SO ("European journal of Teacher Education" OR "Teaching and Teacher Education" OR "Journal of Education for Teaching") AND AB "professional development"	190	
14	AB ("teacher education" OR "teacher educator*" OR "teacher educator identit*") AND SO ("European journal of Teacher Education" OR "Teaching and Teacher Education" OR "Journal of Education for Teaching") AND AB modelling*	13	
15	AB ("teacher education" OR "teacher educator*" OR "teacher educator identit*") AND SO ("European journal of Teacher Education" OR "Teaching and Teacher Education" OR "Journal of Education for Teaching") AND AB "teacher activit*"	0	
16	AB ("teacher education" OR "teacher educator*" OR "teacher educator identit*") AND SO ("European journal of Teacher Education" OR "Teaching and Teacher Education" OR "Journal of Education for Teaching") AND AB ("professional development" OR modelling* OR "teacher activit*")	201	
17	AB ("teacher education" OR "teacher educator*" OR "teacher educator identit*") AND SO ("European journal of Teacher Education" OR "Teaching and Teacher Education" OR "Journal of Education for Teaching") AND AB ("professional development" OR modelling* OR "teacher activit*")	187	Filter= peer review År=2000- Sprog = eng
18	SO "Scandinavian Journal of Educational Research"	1517	
19	SO "Scandinavian Journal of Educational Research" AND AB ("teacher education" OR "teacher educator*" OR "teacher educator identit*") AND AB ("professional development" OR modelling* OR "teacher activit*")	6	
20	SO "Nordic Studies in Education"		Ikke indekseret I ERIC

21	SO "Acta Didactica Norden"	Ikke indekseret I ERIC
22	SO "Studier i Læreruddannelse og Profession"	Ikke indekseret I ERIC

Table 7: Scopus

#	Scopus / 2. maj 2025	Antal hits	Kommentar
1	SO "Nordic Studies in Education"	286	
2	(SRCTITLE ("nordic studies in education") AND TITLE-ABS-KEY ("professional development" OR "modelling" OR "teaching activit*") AND TITLE-ABS-KEY ("teacher education" OR "teacher educator" OR "teacher educator identity"))	11	Filter= peer review År=2000- Sprog = eng, dansk, norsk, svensk
3	SO "Acta Didactica Norden"	272	
4	(SRCTITLE ("acta didactical norden") AND TITLE-ABS-KEY ("professional development" OR "modelling" OR "teaching activit*") AND TITLE-ABS-KEY ("teacher education" OR "teacher educator" OR "teacher educator identity"))	12	Filter= peer review År=2000- Sprog = eng, dansk, norsk, svensk
#	Hjemmeside / 2. maj 2025		
5	"Studier i Læreruddannelse og Profession"	4	Søgt på hjemmesiden danske – og engelske søgeord kombineret

Selected studies

(numbered list)

- Afdal, H. W. (2012). Knowledge in teacher education curricula. *Nordic Studies in Education*, 32(3/4), 245–261.
- Ataş, U., Daloğlu, A., & Hildén, R. K. (2023). Teacher educators in Finland and Turkey: Their roles, knowledge base, and professional development profiles. *European Journal of Teacher Education*, 46(4), 727–745. <https://doi.org/10.1080/02619768.2021.1987412>
- Boei, F., Dengerink, J., Geursen, J., Kools, Q., Koster, B., Lunenberg, M., & Willemse, M. (2015). Supporting the Professional Development of Teacher Educators in a Productive Way. *Journal of Education for Teaching: International Research and Pedagogy*, 41(4), 351–368. <https://doi.org/10.1080/02607476.2015.1080403>
- Bolhuis, E. D., Schildkamp, K., & Voogt, J. M. (2016). Improving teacher education in the Netherlands: Data team as learning team? *European Journal of Teacher Education*, 39(3), 320–339. <https://doi.org/10.1080/02619768.2016.1171313>



- Bronkhorst, L. H., Meijer, P. C., & Koster, B. (2011). Fostering Meaning-Oriented Learning and Deliberate Practice in Teacher Education. *Teaching and Teacher Education: An International Journal of Research and Studies*, 27(7), 1120–1130. <https://doi.org/10.1016/j.tate.2011.05.008>
- DeLuca, C. (2012). Promoting Inclusivity through and within Teacher Education Programmes. *Journal of Education for Teaching: International Research and Pedagogy*, 38(5), 551–569. <https://doi.org/10.1080/02607476.2013.739792>
- Flores, M. A. (2018). Linking Teaching and Research in Initial Teacher Education: Knowledge Mobilisation and Research-Informed Practice. *Journal of Education for Teaching: International Research and Pedagogy*, 44(5), 621–636. <https://doi.org/10.1080/02607476.2018.1516351>
- Gallagher, T., Griffin, S., & Parker, D. C. (2011). Establishing and Sustaining Teacher Educator Professional Development in a Self-Study Community of Practice: Pre-Tenure Teacher Educators Developing Professionally. *Teaching and Teacher Education: An International Journal of Research and Studies*, 27(5), 880–890. <https://doi.org/10.1016/j.tate.2011.02.003>
- Griffiths, V., Thompson, S., & Hryniewicz, L. (2014). Landmarks in the professional and academic development of mid-career teacher educators. *European Journal of Teacher Education*, 37(1), 74–90. <https://doi.org/10.1080/02619768.2013.825241>
- Guberman, A., Ulvik, M., MacPhail, A., & Oolbekkink-Marchand, H. (2020). Teacher educators' professional trajectories: Evidence from Ireland, Israel, Norway and the Netherlands. *European Journal of Teacher Education*, 1–18. <https://doi.org/10.1080/02619768.2020.1793948>
- Harrison, J., & McKeon, F. (2008). The formal and situated learning of beginning teacher educators in England: Identifying characteristics for successful induction in the transition from workplace in schools to workplace in higher education. *European Journal of Teacher Education*, 31(2), 151–168. <https://doi.org/10.1080/02619760802000131>
- Harrison, J., & McKeon, F. (2010). Perceptions of beginning teacher educators of their development in research and scholarship: Identifying the 'turning point' experiences. *Journal of Education for Teaching*, 36(1), 19–34. <https://doi.org/10.1080/02607470903461968>
- Haslekås, C., & Kittilsen, S. (2022). Teacher students' experiences with an inquiry-based learning sequence made for primary school science education. *Acta Didactica Norden*, 16(3). <https://doi.org/10.5617/adno.8569>
- Hatlevik, I. K. R., Engelién, K. L., & Jorde, D. (2020). Universitetsskolers bidrag til utvikling av lærerutdanningen ved Universitetet i Oslo. *Acta Didactica Norden*, 14(2), 27-sider. <https://doi.org/10.5617/adno.7913>
- Haugan, J. A. (2011). A systematic review of research regarding Norwegian general teacher education 2000-2010. *Nordic Studies in Education*, 31(4), 229–244. <https://doi.org/10.18261/issn1891-5949-2011-04-01>
- Hegender, H. (2010). Villkor och praxis. *Nordic Studies in Education*, 30(3), 180–197.
- Hordvik, M., Fletcher, T., Haugen, A. L., Engebretsen, B., & Møller, L. (2023). Using the Metaphor of Orchestration to Make Sense of Facilitating Teacher Educator Professional Development. *European Journal of Teacher Education*, 46(3), 417–434. <https://doi.org/10.1080/02619768.2021.1946510>
- Hordvik, M., Fletcher, T., Haugen, A. L., Møller, L., & Engebretsen, B. (2021). Using collaborative self-study and rhizomatics to explore the ongoing nature of becoming teacher educators. *Teaching and Teacher Education*, 101. <https://doi.org/10.1016/j.tate.2021.103318>
- Huseby, C., & Werler, T. (2025). Powerful Knowledge in Norwegian Teacher Education: A Framework for Curriculum Analysis. *Nordic Studies in Education*, 45(1), 76–91. <https://doi.org/10.23865/nse.v45.6915>
- Jacobs, J., & Perez, J. I. (2023). A qualitative metasynthesis of teacher educator self-studies on social justice: Articulating a social justice pedagogy. *Teaching and Teacher Education*, 123. <https://doi.org/10.1016/j.tate.2022.103994>

- Jenset, I. S., & Blikstad-Balas, M. (2021). Innovative design of fieldwork in teacher education: Using artefacts of practice to prepare for teaching and research in the profession. *Acta Didactica Norden*, 15(3). <https://doi.org/10.5617/ADNO.8153>
- Kalgraf, S., & Lindhardt, E. M. (2018). Lærerutdannerens profesjonelle rolle i praksismøtet. *Nordic Studies in Education*, 38(1), 67–81. <https://doi.org/10.18261/issn.1891-5949-2018-01-06>
- Korsgaard, M. T., & Clausen, C. H. (2022). Om eksemplaritet og lærer(ud)dannelse. Fra mimesis til autonomi. *Nordic Studies in Education*, 42(3), 289–305. <https://doi.org/10.23865/nse.v42.3675>
- Koster, B., & Dengerink, J. J. (2008). Professional Standards for Teacher Educators: How to Deal with Complexity, Ownership and Function. Experiences from the Netherlands. *European Journal of Teacher Education*, 31(2), 135–149. <https://doi.org/10.1080/02619760802000115>
- Leahy, K., Calderón, A., O'Meara, N., MacPhail, A., & O'Flaherty, J. (2025). Navigating times of change through communities of practice: A focus on teacher educators' realities and professional learning. *Teaching and Teacher Education*, 156. <https://doi.org/10.1016/j.tate.2025.104925>
- Lunenberg, M., & Korthagen, F. A. J. (2005). Breaking the Didactic Circle: A Study on Some Aspects of the Promotion of Student-Directed Learning by Teachers and Teacher Educators. *European Journal of Teacher Education*, 28(1), 1–22.
- Lunenberg, M., Korthagen, F., & Swennen, A. (2007). The Teacher Educator as a Role Model. *Teaching and Teacher Education: An International Journal of Research and Studies*, 23(5), 586–601. <https://doi.org/10.1016/j.tate.2006.11.001>
- Lunenberg, M., & Willemse, M. (2006). Research and Professional Development of Teacher Educators. *European Journal of Teacher Education*, 29(1), 81–98.
- Moen, K. M., & Standal, Ø. F. (2014). Student teachers' perceptions of the practicum in physical education teacher education in Norway. *Nordic Studies in Education*, 34(2), 111–126. <https://doi.org/10.18261/issn1891-5949-2014-02-04>
- Morine-Dersheimer, G. (2006). Using the Nuthall lens on learning to sharpen perceptions of teacher education practice. *Teaching and Teacher Education*, 22(5), 563–579. <https://doi.org/10.1016/j.tate.2006.01.005>
- Munthe, E., & Rogne, M. (2015). Research based teacher education. *Teaching and Teacher Education*, 46, 17–24. <https://doi.org/10.1016/j.tate.2014.10.006>
- Naesheim-Bjørkvik, G., Helgevold, N., & Østrem, S. (2019). Lesson Study as a Professional Tool to Strengthen Collaborative Enquiry in Mentoring Sessions in Initial Teacher Education. *European Journal of Teacher Education*, 42(5), 557–573. <https://doi.org/10.1080/02619768.2019.1641487>
- Ni Shuilleabhain, A., & Bjuland, R. (2019). Incorporating Lesson Study in ITE: Organisational Structures to Support Student Teacher Learning. *Journal of Education for Teaching: International Research and Pedagogy*, 45(4), 434–445. <https://doi.org/10.1080/02607476.2019.1639262>
- Østern, A.-L., Svedlin, R., & Engvik, G. (2020). Partnerskap inom lärarutbildning i Norge och Finland: Historiska förutsättningar för og praktiklärares förståelse av professionell handledning. *Acta Didactica Norden*, 14(2), 22-sider. <https://doi.org/10.5617/adno.7915>
- Patton, K., & Parker, M. (2017). Teacher education communities of practice: More than a culture of collaboration. *Teaching and Teacher Education*, 67, 351–360. <https://doi.org/10.1016/j.tate.2017.06.013>
- Schipper, T. M., Willemse, T. M., & Goei, S. L. (2022). Supporting teacher educators' professional learning through lesson study. *Journal of Education for Teaching*, 48(3), 316–331. <https://doi.org/10.1080/02607476.2021.1988825>
- Swennen, A., Lunenberg, M., & Korthagen, F. (2008). Preach what you teach! Teacher educators and congruent teaching. *Teachers and Teaching: Theory and Practice*, 14(5–6), 531–542.
- Teräs, H., Teräs, M., & Suoranta, J. (2024). Holograms or Hemorrhoids? Student Teachers' Imaginings of the Digital Futures of Education. *Nordic Studies in Education*, 44(2), 122–141. <https://doi.org/10.23865/nse.v44.5928>



- Vanassche, E., Kidd, W., & Murray, J. (2019). Articulating, reclaiming and celebrating the professionalism of teacher educators in England. *European Journal of Teacher Education*, 42(4), 478–491. <https://doi.org/10.1080/02619768.2019.1628211>
- Waage, K., & Haugalokken, O. K. (2013). Research-Based and Hands-On Practical Teacher Education: An Attempt to Combine the Two. *Journal of Education for Teaching: International Research and Pedagogy*, 39(2), 235–249. <https://doi.org/10.1080/02607476.2013.765195>
- White, E., Timmermans, M., & Dickerson, C. (2022). Learning from professional challenges identified by school and institute-based teacher educators within the context of school–university partnership. *European Journal of Teacher Education*, 45(2), 282–298. <https://doi.org/10.1080/02619768.2020.1803272>

Marie Falkesgaard Slot

Ph.d., docent

Institut for Læreruddannelse, Københavns Professionshøjskole (KP), Danmark

E-mail: mafa@kp.dk

ORCID: 0009-0005-7007-283X

Mathias Thorborg

Ph.d., adjunkt

Institut for Læreruddannelse, Københavns Professionshøjskole

E-mail: matho@kp.dk

ORCID: 0009-0004-7057-423

Ida Elbæk

Lektor

Institut for Læreruddannelse, Københavns Professionshøjskole

E-mail: idae@kp.dk

ORCID: 0000-0003-1668-2563

Pia Rose Böwadt

Ph.d., docent

Institut for Læreruddannelse, Københavns Professionshøjskole

E-mail: prb@kp.dk

ORCID: 0009-0001-8703-5876

Lene Cicilie Storgaard

Ph.d., docent

Institut for Læreruddannelse, Københavns Professionshøjskole

E-mail: lsb@kp.dk

ORCID: 0009-0005-9285-7363



Dorrit Sørensen

Lektor

Institut for Læreruddannelse, Københavns Professionshøjskole

E-mail: doso@kp.dk

ORCID: 0000-0003-2237-2780