



Five Quality Indicators: An Analytical Framework for Evaluating Teacher Education

Hans Harryson

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The purpose of this article is to present a framework for evaluating teacher education programmes and to contribute to a more nuanced and expanded discussion of quality in teacher education. The analysis focuses primarily on integrated teacher education in the Nordic countries and is guided by the research question: *Which indicators should be used to assess the quality of a teacher education programme?* Rather than treating quality as a static or one-dimensional concept, the article advances a dynamic and multi-faceted approach.

To address the research question, a broad selection of literature was systematically reviewed, including peer-reviewed articles, book chapters, comparative Nordic studies and national evaluation reports. The collected material was analysed using the qualitative software NVivo 14, with inductive coding guiding the analytical process. Five interconnected quality dimensions – or quality markers – emerged from the data: recruitment, integration, academisation, resilience and competence.

The recruitment indicator examines both the quantity and quality of applicants and raises concerns about declining enrolment and dropout. The integration indicator focuses on coherence across theoretical, pedagogical and practical components of teacher education. The academisation indicator reflects the shift towards research-based education, highlighting tensions between academic rigour and practical relevance. The resilience indicator looks at how well newly qualified teachers handle the transition into the profession, emphasising the importance of induction and support. Finally, the competence indicator assesses whether graduates can create inclusive and effective classrooms, taking into account external pressures such as accountability systems.

The article concludes that these five indicators function best when viewed as an integrated framework. Improving one dimension in isolation can have unintended consequences if others are neglected. The framework offers a structured tool for evaluating and strengthening teacher education in a holistic, evidence-informed manner.

Keywords: teacher education, teacher training, quality in teacher education, evaluating teacher education, teacher educators, newly qualified teachers

Introduction

The teaching profession requires specialised knowledge. For this reason, teacher education is a professional degree programme, i.e. it aims to socialise, qualify and certify student teachers to teach. Therefore, its quality must be assessed based on whether this mission is successful.

The teaching profession cannot be studied independently of the society to which it belongs. In other words, the teaching profession is system-dependent. This implies its purpose lies outside itself (Harryson, 2018; Terum & Heggen, 2010). Consequently, the development of the teaching profession is not solely guided by its own standards and internal logic of progress but is significantly influenced by specific societal demands. Like trained preschool teachers, nurses and doctors, primary and lower secondary school teachers must implement public policies and meet the expectations and requirements set forth by political authorities (Molander & Smeby, 2013). If external evaluations conclude that teachers, as professional practitioners, fail to fulfil their societal mandate, political reforms are introduced – either in the teachers’ working conditions or in teacher education programmes (Haug, 2010a, 2010b; Terhard, 2004).

It is likely that laypeople agree that a significant hallmark of a strong profession is having its own professional degree programme (Crowe, 2008) and that the primary purpose of teacher education is to prepare students for the teaching profession. However, consensus becomes more difficult to achieve when asked about the fundamental competencies a student teacher should acquire during their studies and how the degree should be organised accordingly (Darling-Hammond, 2006; Hattie, 2009). Teacher education is often described as a particularly complex and heterogeneous degree, and this complexity and heterogeneity result in teacher education programmes being organised in numerous and diverse ways, both nationally and internationally (Afdal, 2012; Darling-Hammond & Lieberman, 2012; Hopmann, 2006; Rasmussen & Bayer, 2014). The variation is so vast that prominent teacher education researchers have proclaimed that “there is no such thing as teacher education” (Shulman in: Crowe, 2008, p. 991). This statement should be understood to mean that there is no single main pathway into the teaching profession – only alternative routes exist.

The fact that teacher education is structured in diverse ways and is periodically restructured (Rasmussen, 2017) has led to it sometimes being regarded as “the Bermuda Triangle of higher education” (Duncan in: Patrick et al., 2011, p. 74) and compared to “the fabled Wild West town” where there are no rules or order (Levine in: Hattie, 2009, p. 109). For this reason, teacher education reforms have been described as “a contested enterprise” (Cochran-Smith & Fries, 2008, p. 1050) and as “a story without an end” (Terhard, 2004, p. 29).

This research project focuses on teacher education in the Nordic countries and takes its point of departure in the ongoing debate on how teacher education can be improved. It also incorporates the many studies and evaluation reports (both in the Nordic countries and in other parts of the world) that highlight both the challenges and potentials of teacher education. The purpose of the article is to present a framework designed to guide policymakers and researchers in assessing teacher education and situating it within a broader educational policy context.

Approach and Design

This article is guided by the following research question:

- *Which indicators should be used to assess the quality of a teacher education programme?*

The study does not rely on a single, fixed theoretical lens. Instead, it incorporates dominant (or recurring) narratives drawn from policy papers, the sociology of the professions and research on teacher education (Bryman, 2004; Edley, 2001). The aim is to give vitality to multiple voices and to illuminate how teacher education, and the notion of quality in teacher education, are viewed and framed from different perspectives and by different stakeholders.

To explore this research question the author collected both peer-reviewed studies and other relevant materials that shed light on the current state, potentials and challenges of teacher education. Google Scholar (www.scholar.google.com) was used to identify peer-reviewed articles. The search strategy

included the following keywords: (“teacher education” OR “teacher education in the Nordic countries”) AND (“quality” OR “evaluation” OR “evaluation reports” OR “student teachers” OR “application rates” OR “dropout” OR “newly qualified teachers”). The time frame covered the period from 2005 to 2023.

This search yielded more than 15,000 articles. Upon closer inspection, it became evident that only a very small fraction addressed the research question guiding this article, and an even smaller fraction specifically examined teacher education in the Nordic countries. Most of the articles focused on selected aspects of teacher education, for example continuing education, AI in teacher education, multicultural perspectives, mentoring arrangements, subject-specific fields or alternative teacher education programmes. Many of these described teacher education systems that differed substantially from the mainstream Nordic models. Thirty-one references were selected for closer analysis, ten of which were drawn from (or referred to) books or book chapters.

The Danish Evaluation Institute (www.eva.dk) and Idunn (www.idunn.no) were also consulted to identify evaluation reports, specific studies and recent research articles addressing Nordic teacher education. Here, Danish and Norwegian search terms were used. These searches generated several hundred articles and electronic references, but only a fraction directly addressed the quality of teacher education. Many focused instead on topics such as school leadership training, e-learning, other professional education programmes, subject-specific teacher education, diversity or the emotional dimensions of teachers’ work. Thirteen articles were selected for closer analysis, seven of which were evaluation reports.

The dataset was further supplemented with (1) library books explicitly referring to Nordic teacher education and/or comparing teacher education across the Nordic countries, (2) opinion pieces from the websites of Nordic teachers’ unions addressing the state of teacher education and (3) books and articles by internationally recognised scholars of teacher education.

The selected material belonged to these academic genres and comprised 87 articles.

Table 1

Overview of the collected material in alphabetical order: Seven literary categories

Source Type	Examples
Evaluations of teacher education programmes in various Nordic countries	Børte (2017); Caspersen & Raaen (2010); EVA (2013, 2016, 2017, 2022); Hastrup et al. (2013); Lillejord & Børte (2017); NOKUT (2006, 2024); Poulsen et al. (2024); Terum & Heggen (2010); University of Iceland (2014)
Comparative studies of Nordic teacher education programmes	DAMVAD Analytics (2020); Elstad (2020, 2023); EVA (2009); Harryson (2018); Holmlund (2023); Hopmann (2006); Rasmussen (2017); Rasmussen & Bayer (2014)
Book chapters highlighting selected aspects of Nordic teacher education	Dement-Poort & Elstad (2023); Harryson (2023); Haug (2010a, 2010b); Heggen (2003); Hinna & Lysø (2012); Løw & Skibsted (2016); Madsen & Jensen (2023); Munthe & Haug (2010); Rasmussen (2006b); Sahlberg (2010); Sigurðsson et al. (2020); Skagen & Elstad (2023); Svanbjörnsdóttir et al. (2020); Åstrand (2020)
Minor studies and relevant newspaper articles that provide insights into teacher education in the Nordic countries	Amir & Tiedemann (2017); Bjerkholt (2010); Det Økonomiske Råd (2022); Holt (2018); Mainz (2023); Netterstrøm & Milsted (2022); Nordby (2025); Plauborg et al. (2022); Produktivitetskommissionen (2013); Rasmussen (2022); Universitetet i Stavanger (2020)
Studies on newly qualified teachers in the Nordic region	Böwadt (2022); Frederiksen (2020); Hansen (2012); Heikkinen (2020); Holmlund (2023); Kraft & Papay (2014); Ladd & Sorensen (2017); Lindhard (2008); Olsen et al. (2020); Peterson et al. (2011); Plauborg et al. (2022); Svanbjörnsdóttir et al. (2020)
Handbooks on teacher education, internationally recognised models of teacher preparation, research articles on teacher education in other parts of the world	Afdal (2012); Cochran-Smith & Fries (2008); Cochran-Smith et al. (2019); Darling-Hammond (2006); Darling-Hammond & Lieberman (2012); Donaldson (2010); Ellis et al. (2012); Harrison & McKeon (2008); Izadinia (2014); Kelchtermans (2017); Klassen et al. (2020); Korhagen et al. (2005); Kumashiro (2008); Lipcon (2008); Lokhott et al. (2010); Loughran (2006); Murray (2016); Russell & Martin (2016); Smith (2011); Tatto & Pippin (2017); Westbury et al. (2005); White & Forgasz (2016)
Findings from international school assessments	Engel & Frizzell (2015); Mullis et al. (2019); OECD (2023); Wittek (2018); Wößmann (2007)

In some cases, an entire article, report or book chapter was relevant to the research question, while in most cases only smaller sections were of relevance. Once the dataset had been compiled the material was organised and analysed using a qualitative approach. As Kristensen (2015) notes, raw data must be interpreted in order to become meaningful, and coding is therefore a central step in the analytical process. Qualitative researchers often apply index codes to systematise and reduce large volumes of data.

Mason (2002) describes coding (also termed indexing, categorising, assigning nodes or “code and retrieve”) as the systematic use of a predefined set of categories, functioning similarly to headings and subheadings in a book. Kvale and Brinkmann (2015, p. 262) define coding as attaching one or more keywords to a passage of text so that a statement can be identified at a later stage. One key advantage

of coding is that it provides the researcher with a clearer overview of the dataset and fosters closer familiarity with the material.

In this study data-driven coding was applied. The analysis began without predefined codes; instead, codes emerged through close engagement with the material. This approach is also referred to as “emic coding” or “bottom-up coding” (Kristensen, 2015, p. 485).

The electronic material was processed using NVivo 14, a qualitative data analysis software. Material originating from physical books was processed using NVivo-inspired approaches with labels and colour codes. The coding focused particularly on headings, subheadings, abstracts, findings, discussions and conclusions.

The inclusion and exclusion mechanisms were based on the data material’s relevance to the research question, rather than its informativeness in other respects. After this initial sorting both the author and a research assistant with a background in linguistics read and coded the material independently. The purpose of this dual reading was partly to prevent the author’s possible preconceptions (bias) from leading to overinterpretation and partly to examine whether two independent readers could reach consensus on what might be considered a quality marker (or indicator of quality) in teacher education as a whole. The author and the assistant largely agreed that several indicators could be identified both prior to entry into the programme and after graduation, and that these should be incorporated into the analysis. The final number of indicators, as well as the delineation of their scope, was determined through negotiation, with the author having the final say.

Findings

By integrating findings from various research studies, book chapters and evaluation reports, five quality parameters have been identified. These indicators – some more visible and prominent in public discourse than others – are:

- The recruitment indicator
- The integration indicator
- The academisation indicator
- The robustness indicator
- The competence indicator

The article begins by presenting the key characteristics of the five identified quality indicators, followed by a discussion of their interrelations and how they function as prerequisites for one another.

The Recruitment Indicator

The recruitment indicator focuses on two overarching questions:

- How many persons apply for teacher education?
- What is the dropout rate in teacher education?

This indicator provides insight into how attractive teacher education is compared to other higher education programmes when young people choose their field of study. The recruitment indicator has both a quantitative and a qualitative dimension. The quantitative dimension is straightforward, as it offers a clear overview of the number of applicants a local or national teacher education programme receives each year. This figure is typically compared with:

1. The number of applicants to other higher education programmes
2. The number of available study spots
3. The need for qualified teachers

The qualitative dimension, on the other hand, is more complex and harder to delineate, as it involves not just the number of applicants but also their qualifications. This means assessing the academic, personal and social qualifications of applicants. This insight forms the basis for evaluating whether applicants have the potential to complete the programme and contribute to the school system in the long term (Donaldson, 2010; Klassen et al., 2020).

Applicants' academic qualifications are partly reflected in their high school diplomas. However, their personal and social qualifications are more challenging to determine. Here, the weighted average mark from high school is often supplemented with the applicant's CV and references from previous employers.

To gain a more nuanced understanding of applicants' overall qualifications, some teacher education programmes have introduced screening procedures (Weisdorf, 2020). These can include admission interviews and specific tasks that candidates are required to complete prior to admission. The decision to screen candidates rests on evidence that students' starting points and backgrounds significantly shape their behaviour as student teachers and the outcomes they achieve during their education (Darling-Hammond, 2006; Donaldson, 2010; Lindhart, 2008). This correlation is frequently addressed by researchers working within the field of teacher cognition and teacher beliefs (Peterson et al., 2011). Furthermore, a few studies have shown that a student teacher's average grade from upper secondary school may influence how their future pupils perform in selected lower secondary school subjects at final exams (Det Økonomiske Råd, 2022; Produktivitetskommissionen, 2013).

Screening procedures vary across countries and between institutions, but the goal is always the same: to identify and recruit the most suitable candidates for teacher education.

One of the first steps in the development of an effective teacher workforce is to identify applicants who, first, are likely to succeed in an initial teacher education programme [...] and second, are likely to experience success as practising teachers. (Klassen et al., 2020, p. 1)

In the discourse on teacher education, the quantitative and qualitative dimensions are often seen as two sides of the same coin. To ensure enough qualified students, a large applicant pool is generally a prerequisite (Harryson, 2023). In many countries, however, recruitment challenges are seen as one of the greatest obstacles facing teacher education and the teaching profession in the twenty-first century (DAMVAD Analytics, 2020; Mainz, 2023; Sigurðardóttir et al., 2018). This claim is supported by data showing that the number of young people applying for teacher education has consistently fallen short of the need for qualified teachers. Consequently, many teacher education programmes admit nearly all applicants, regardless of their qualifications (Mainz, 2023; Nordby, 2025; Rasmussen, 2022).

The Finnish teacher education model is often highlighted as an exemplary counterbalance to this trend. While the Finnish model has many strengths, its high number of applicants is often cited as its greatest quality:

Finland is perhaps the only nation that is able to select its primary school teacher-students from the top quintile of all high school graduates year after year. [...] Thus, I call this phenomenon 'Finnish advantage', while other nations continue to wonder how to get the 'best and brightest' into teaching. (Sahlberg, 2010, p. 76)

When young people consider whether to pursue a teaching degree, their decision is not solely based on personal interests and ambitions. They are also influenced by how the teaching profession is portrayed in the media, political discourse, unions and public opinion. In educational policy debates the teaching profession is often described as marked by stress, burnout, sick leave and premature departures (Netterstrøm & Milsted, 2022; Plauborg et al., 2022). The message, both directly and indirectly, is that being a teacher today requires strong mental resilience. In the long term it is crucial that the increasing workload in the teaching profession is not overlooked and that policymakers receive regular updates from the field (Holmlund, 2023). In the short term, however, the many negative narratives about stress and challenges in teaching may deter potential applicants from pursuing teacher education (EVA, 2022).

Teacher education programmes in the Nordic countries not only struggle to recruit sufficient applicants; they also face high dropout rates among those who begin a programme. Statistics from several Nordic countries show that in the past decade it has not been uncommon for over one-third of teacher students to not complete their studies (Amir & Tiedemann, 2017; EVA, 2017; Sigurðsson et al., 2020; Skagen & Elstad, 2023). The dropout rate is often higher in teacher education than in other professional degree programmes, and in some countries, for example Denmark, it tends to be more sustained throughout the programme rather than concentrated in the first year (Madsen & Jensen, 2023). Interviews with former students who left the programme point to various reasons for dropping out. Some say that the academic content and teaching methods are problematic, others mention the short and unstructured practical training periods and some report a lack of motivation and poor study habits (EVA, 2013).

In some Nordic countries it is hypothesised that high dropout rates may be related to the fact that student teachers are on average older than other university students. They are more established, have greater financial obligations and often hold paid employment alongside their studies (Sigurðsson et al., 2020). In other countries the dropout debate is linked to whether attendance is mandatory and whether the student held teacher education as their first priority when applying for a study programme (Elstad et al., 2023; Harryson, 2023).

Statistical studies have revealed a clear pattern:

Overall, students with low grades are at greater risk of dropping out compared to those with average or high grades. [...] When looking at the overall grade point average from high school, students with an average below 4 are at greater risk of dropping out than those with an average above 4. (EVA, 2013, p. 17)

A direct consequence of the small number of applicants to many Nordic teacher education programmes and the high dropout rate is that many municipalities struggle to recruit qualified teachers. This has led to a significant increase in the number of unqualified individuals teaching in schools (Holmlund, 2023; Plauborg et al., 2022; Åstrand, 2020).

In short, recruitment and dropout challenges represent one of the greatest issues facing teacher education and the teaching profession today – and concrete solutions seem difficult to identify.

The Integration Indicator

The integration indicator often begins with feedback from student teachers in their final years of study and newly qualified teachers, both of who are asked to evaluate:

- Whether the programme was coherent and had a natural progression
- Did it seem to them that different teacher educators communicated and were aware of each other's teaching content?
- Were the various subjects and courses in the programme relevant, useful and practice-oriented?

The integration indicator focuses on the content and structure of teacher education. While teacher education programmes vary globally, most – particularly those in the Nordic countries – have traditionally been built around three core components: (1) subject-specific courses, (2) pedagogical courses and (3) practicum (Hopmann, 2006; Ostinelli, 2009; Rasmussen, 2006b). In recent years, however, this tripartite structure has become less visible, as learning-outcome-oriented instruction has increasingly replaced content-based teaching, and longer, comprehensive subjects have been substituted with shorter and more narrowly defined courses (Afdal, 2012; EVA, 2016; Løw & Skibsted, 2016; NOKUT, 2024; Poulsen et al., 2024; University of Iceland, 2014). Nonetheless, if courses with related content are grouped together, it can be argued that teacher education programmes in many countries still consist of the same three foundational elements: teaching subjects, pedagogical subjects (broadly defined) and practicum (Harryson, 2018).

Although teacher education consists of only three main components, these elements are broad in scope, which contributes to its characterisation as both a heterogeneous and fragmented programme compared to other professional degree programmes (Darling-Hammond, 2006; Haug, 2010b; Munthe & Haug, 2010).

When questioning why the subjects and courses in teacher education are not more integrated, the simple answer is that they are based on (or represent miniatures of) vastly different academic disciplines that are not easily aligned. Each discipline has its own knowledge base and didactic traditions (Murray, 2016). Teacher education includes subjects from the humanities, social sciences, natural sciences, creative arts and physical education, which traditionally lack strong collaborative ties outside the context of teacher education.

Research identifies at least four primary reasons for the limited collaboration among subjects in teacher education:

Time pressure: The integrated teacher education model is highly ambitious, as students are expected to acquire a wide range of pedagogical, academic, didactic and practical competencies within a relatively short time frame. As a result both teacher educators and students often feel there is “too little time for everything” (Harryson, 2018; Loughran, 2006; Murray, 2016).

Content reduction requirements: Each subject in teacher education represents a compromise between two established yet distinct discourses. One is the university discourse, where subject experts conduct research and advance the academic discipline, and the other is the school discourse, where primary and lower secondary school teachers deliver the subject content to the younger generation. In a teacher education context the academic subject must be reduced to fit the given time frame and allocated ECTS credits while being transformed and recontextualised to make sense in a school setting (Afdal, 2012). This transformation process is often so demanding that teacher educators have limited time to engage in interdisciplinary collaboration.

Academic narrowness: Educators responsible for specific subject areas in teacher education may struggle to value the contributions and perspectives from other areas. This can lead to a perception that the interdisciplinary element of teacher education is time-consuming and disruptive.

Lack of collective habitus: Although teacher education is one of the oldest forms of higher education in many countries, teacher educators often lack a collective habitus and shared vision (Murray, 2016). One significant reason is the lack of courses in teacher education pedagogy for teacher educators. This is notable given that the education sector offers courses in high school pedagogy for high school teachers (Dolin et al., 2020) and university pedagogy for university lecturers (Biggs & Tang, 2011; Christensen & Fristrup, 2006; Rienecker et al., 2015).

Darling-Hammond (2006, p. 278) writes in this context that

...many of those who have found themselves teaching teachers have not thought of themselves as ‘teacher educators’, and most have had little preparation for the task of educating teachers. They have taught their courses as they would to any college student, leaving it to the prospective teachers to integrate subject matter and pedagogical studies.

The European Commission refers to teacher educators as “a hidden profession” (European Commission, 2013, p. 6), acknowledging that their work and induction processes have been politically overlooked and neglected in educational research (Cochran-Smith et al., 2019; Hinna & Lysø, 2012; Kumashiro, 2008; Rasmussen, 2022).

A similar conclusion is found in a review article on teacher educators:

...teacher educators, especially during their one to three years of induction into higher education, feel considerable levels of stress and doubts about their abilities to perform their roles as teacher educators, feel lonely and marginalized, and face difficulties acquiring a teacher educator identity. (Izadinia, 2014, p. 436)

The academic diversity within teacher education and the unsuccessful (or incomplete) attempt to define a shared pedagogy for teacher educators (pedagogical signature¹) have led researchers to discuss “the heterogeneity in the occupational group in teacher training” (Murray, 2016, p. 39). Teacher education researchers seem to agree that, regardless of the primary cause of the lack of collaborative culture, the consequence remains the same: the various subjects and courses in teacher education tend to remain isolated and “information does not travel between units” (Westbury et al., 2005, p. 480).

When discussing integration issues in teacher education, the collaboration – or lack thereof – between theoretical teaching and practicum constitutes a particular challenge.

Practicum problems appear (across the international literature) to be long-standing and almost universal [...] and the idea of an absence of explicit connections made between university-based coursework and school-based experience is frequently identified as a major challenge in initial teacher education. (White & Forgasz, 2016, p. 236)

Numerous studies show that students often perceive the theoretical teaching in teacher education and the experiences they gain during their practicum as two separate worlds (Munthe et al., 2020). There is often a lack of practice-oriented theory on campus and theory-based practice in practicum schools (Haastrup et al., 2013). This issue is also highlighted in comparative studies of teacher education and other professional degree programmes. Nordic studies show that teacher education students tend to perceive their programmes as less cohesive and less practice-oriented than students enrolled in other professional programmes (Terum & Heggen, 2010).

In summary, integration issues have been both a characteristic and a weakness of teacher education globally for decades. Despite many attempts to bridge the gap between theory and practice, subject-specific and pedagogical courses as well as campus-based teaching and practicum, it remains challenging to turn the heterogeneous into the homogeneous and the fragmented into the coherent.

The Academisation Indicator

The academisation indicator compares teacher education with other higher education programmes and poses the following questions:

¹ The term “pedagogical signature” originates from Lee S. Shulman. Shulman (2005, p. 52) defines pedagogical signature as “types of teaching that organize the fundamental ways in which future practitioners are educated for their new profession.” For example, casework serves as a type of signature pedagogy in law studies, just as clinical practice serves as a type of signature pedagogy in medical studies (Munthe & Haug, 2010).

- Where is teacher education positioned on the academic spectrum?
- What percentage of teacher educators hold a research degree?

These questions are quantitative and can easily be illustrated in a hierarchical model. However, to fully understand their significance it is necessary to view them within a historical context.

For more than 100 years teacher education in the Nordic countries has been firmly rooted in a particular tradition of practice-oriented teacher training colleges with distinct characteristics (Elstad, 2020; Harryson, 2023). However, at the beginning of the twenty-first century criticism of the quality of the degrees offered by these colleges increased. The prevailing perception was that universities were better equipped to train primary school teachers than seminaries and that a master's-level teacher education programme would better prepare students for modern schools than a bachelor's-level programme (Elstad, 2023).

The decision to academise teacher education was partly driven by the accountability trend in primary and lower secondary school discourse, which placed greater emphasis on national tests and international comparisons (Tatto & Phippen, 2017). It was also part of a broader ambition to align all higher education programmes with the European Credit Framework and the Bologna Paradigm, which emphasise programme structure, progression and competence descriptions (Lokhoff et al., 2010; Smith, 2011; Ulriksen, 2016).

In a Nordic context the Bologna Paradigm has centred discussions on teacher education structure around topics such as programme length, academisation, research orientation, professional focus, specialisation, internationalisation and institutional placement (Haug, 2008; Rasmussen, 2006b; Terhart, 2004).

Teacher education, which in most Nordic countries was previously a seminary tradition, has become increasingly integrated into more academically oriented higher education strategies, albeit following different trajectories. (Krejsler, 2023, p. 341)

The impressive Finnish results in the PISA (Programme for International Student Assessment) assessments have significantly influenced what is considered “best practice” in the Nordic teacher education debate. Finland has offered a five-year master's programme for teachers since 1979 (Sahlberg, 2010). Over the past 20 years this model has been highlighted as a kind of “gold standard” for the content, structure and placement of teacher education.

In the twenty-first century 18 European countries have established five-year, university-based teacher education programmes, while 14 countries still offer three-year (bachelor's) or four-year (professional bachelor's) programmes (Eurydice, 2018). In the Nordic region the past few decades have seen a clear trend towards merging teacher education with the university sector, transforming former teacher training colleges into university-based programmes. Today, teacher education in Finland, Iceland, Norway and Sweden is organised as five-year master's programmes (Elstad, 2020). In contrast, the programmes in Greenland and the Faroe Islands remain four-year bachelor's degrees (Demant-Poort & Elstad, 2023; Harryson, 2023), while in Denmark teacher education continues to be offered as a four-year professional bachelor's degree (Madsen & Jensen, 2023).

The transition from teacher training college-based to university-based teacher education involves not only changes in content and organisation but also increased demands on teacher educators' qualifications. University programmes must, by definition, be research-driven, research-oriented and research-based (Lillejord & Børte, 2017). To meet these requirements, a significant portion of the faculty must hold a PhD or be pursuing one.

Educational researchers have for decades documented that teachers' teaching competencies at all levels of education significantly impact student learning outcomes (Hattie, 2009; Helmke, 2013).

The academisation parameter adds a new dimension to the discussion of teaching quality, as this (from a university perspective) is primarily assessed by whether the educator holds a research degree (PhD) (Cochran-Smith et al., 2019).

A central dilemma within the academisation parameter is that research and teaching competence are not necessarily overlapping skills. The best teachers in teacher education are not automatically the best researchers, and vice versa.² This is emphasised by student surveys, which show that teacher educators with a research profile (i.e. PhD holders) tend to use lectures and plenary teaching more often than their non-research-trained colleagues (Munthe & Haug, 2010). At the same time, preservice teachers often prefer educators with a background as primary or lower secondary school teachers who have practical experience and can incorporate relevant examples from practice (Harryson, 2018; Murray, 2016; Smith, 2011). Put differently, preservice teachers often seem to have an implicit expectation that teacher educators should serve as role models and that their teaching should therefore be exemplary (Loughran, 2006).

Korthagen et al. (2005) highlight the unique position of teacher educators:

The teacher education profession is unique, differing from, say, doctors who teach medicine. During their teaching, doctors do not serve as role models for the actual practice of the profession, i.e., they do or do not teach their students. Teacher educators, conversely, whether intentionally or not, teach their students as well as teach about teaching. (p. 111)

This dual role is unique and should not be underestimated, as numerous studies show that “how a teacher educator teaches is the message” (Russell & Bullock, 1999, p. 139). It is therefore crucial that teacher educators “practice what they preach” (Darling-Hammond, 2006, p. 279) and “are the kind of teachers they want their students to become” (Darling-Hammond, 2006, p. 195). Teacher students differ from other students in that “they are always on the lookout for ideas they can connect to practice” (Russell & Martin, 2016, p. 169). Additionally, there is a widespread tendency for “teachers [to] teach as they were taught” (Russell & Martin, 2016, p. 169).

A review article on teacher educators concludes that teacher educators are believed to be “at the core of good teacher education [...] and their work significantly impacts on the quality of future teachers” (Izadinia, 2014, p. 426).

In summary, the academisation indicator is in many ways a double-edged sword. That teacher education is research-based and that teacher educators must have research competence undoubtedly enhances the theoretical teaching on campus and raises the programme’s status. However, it is equally important to emphasise that the professional field for which teacher students are being prepared is highly practice-oriented. Therefore practical examples, exercises, reflections and practical know-how should always serve as a central and recurring reference point in teacher education.

The Resilience Indicator

The resilience indicator tracks newly qualified teachers from their education into the workforce and asks:

- How well do newly qualified teachers settle into the teaching profession?
- How effectively do they manage the tasks and challenges inherent in modern primary and lower secondary schools?
- Do they remain in the teaching profession for many years or do they leave after a short period?

² Murray (2016) notes that teacher educators in most countries can be divided into three groups: (1) those with a background as primary school teachers and relevant academic qualifications, (2) those with a research degree but no experience teaching in primary schools and (3) those who meet both criteria. In some countries teaching experience is emphasised as the most important qualification (Ellis et al., 2012; Harrison & McKeon, 2008), while in others teacher educators are required to hold a research degree to secure a permanent position (Cochran-Smith et al., 2019).

These questions are more relevant today than a few decades ago when teaching was more commonly viewed as a calling and a lifelong career (Böwadt, 2022). While there were not only good but also bad days in a teacher's professional life, the thought of leaving the profession was not a latent possibility in their minds. In the twenty-first century, however, the situation is different. Studies from many countries show that a high percentage of newly qualified teachers leave the profession within the first 3–5 years, leading to teaching being labelled as “the profession that eats its young” (Bjerkholt, 2010).

There are several divergent explanations for why the attrition rate among newly qualified teachers is so high (Plauborg et al., 2022). Some explanations point to teacher education itself:

- Teacher education is too theoretical and fails to prepare students for actual teaching work.

Other explanations focus on the school environment:

- The work of a primary and lower secondary school teacher becomes more demanding and complex with each decade.

Still, others take a broader societal perspective:

- The modern workforce is flexible, and changing jobs regularly is the norm rather than the exception among younger workers.

Empirical studies support all three explanations. Looking first at teacher education, numerous national and international studies have shown that many newly qualified teachers feel there was a disconnect between the theoretical topics they studied during their studies and the practical challenges they face in today's primary schools (Hansen, 2012; Heggen, 2003; Terum & Heggen, 2010). For this reason many newly qualified teachers experience a so-called practice shock (also referred to as reality shock, cultural shock, transfer shock or transition shock) when they begin their teaching careers. This shock is not traumatic but rather reflects a feeling of inadequacy in handling the multifaceted tasks that teaching entails (Caspersen & Raaen, 2010; Dahl, 2022). Consequently, many newly qualified teachers leave the profession shortly after starting (Bjerkholt, 2010; Lipcon, 2008). This not only creates an unpleasant experience for the individual but is also regarded as a societal waste of resources.

In this context resilience refers to the teacher education programme's inability to equip newly qualified teachers with the necessary skills and tools to handle the diverse tasks inherent in teaching, negatively affecting their coping strategies.

Those who focus on the school as an organisation argue that schools have become increasingly complex and that teaching today is comparable to multitasking like an octopus. Professional studies show that primary school teachers “experience a higher degree of stress than the average for other job groups, ranking among the most stressed [...] Stress levels among primary school teachers are gradually increasing” (Netterstrøm & Milsted, 2022, p. 82).

The reasons why teaching has become a high-risk profession are frequently discussed and described in nearly identical terms across the Nordic countries. Among the most prominent reasons are the demands of inclusive education, classroom disruptions, students with behavioural challenges, demanding parents, increased documentation requirements, goal-oriented teaching, new technology and the role of teachers as frontline workers in an increasingly competitive society (Dahl, 2022; Fransson & Gustafsson, 2008; Holt, 2018; Nordahl, 2020; Pedersen, 2011; Universitetet i Stavanger, 2020).

In order to help newly qualified teachers gain a foothold in the profession and retain them in teaching, several countries have introduced various mentoring programmes with positive results (Plauborg et al., 2022; Svanbjörnsdóttir et al., 2020).

Mentoring is identified as a crucial factor in teacher induction programmes in relation to retaining new teachers at schools in well-performing school districts [...] and those who experienced induction and mentoring support in their first year of teaching were less likely to leave teaching or change schools. (Frederiksen, 2020, p. 57)

Those who emphasise the flexibility of the labour market as a possible explanation argue that young people are selective and do not perceive it as a failure to resign and change jobs regularly (Ritzau, 2022; Simonsen, 2023). They also point out that teacher education is broad, enabling primary school teachers to find employment outside the school system or pursue further education (Kelchtermans, 2017; Plauborg et al., 2022).

In summary, resilience and perseverance are not merely individual traits or skills developed during teacher education; they must always be understood in relation to the challenges inherent in teaching and the support systems available to newly qualified teachers during the early stages of their professional development (Heikkinen, 2020).

The Competence Indicator

The competence indicator focuses not only on newly qualified teachers but also on the primary and lower secondary school students they teach and are responsible for daily. Within this framework, questions like the following arise:

- How well do newly qualified teachers manage to create an inclusive learning environment?
- How effectively do they promote student well-being and enthusiasm for learning?
- How consistently do they ensure a high academic standard in teaching?

The competence indicator is part of the New Public Management trend in schools which emphasises goal- and results-oriented management, efficiency and increased documentation requirements. This parameter is particularly prominent in educational policy debates (Sløk, 2018). Well-being surveys among primary and lower secondary school students (and youth in general) attract significant attention from both politicians and the media (Powell et al., 2018; Qvortrup & Wistoft, 2024; Wiedemann, 2023). National school tests are a cornerstone of the educational discourse and serve as an important comparative tool in many Nordic countries (Bundsgaard & Kreiner, 2019). International tests such as PISA, PIRLS (Progress in International Reading Literacy Study) and TIMSS (Trends in International Mathematics and Science Study) have over the past 20 years functioned almost like a global competition in education policy (Engel & Frizzell, 2015). Countries that perform best in these tests appear at the top of public rankings, while those with poorer results are listed at the bottom (Mullis et al., 2019; OECD, 2023).

Whether focusing on well-being surveys or school tests, the teacher's work – i.e. students' measurable learning outcomes – is made visible and subject to debate. Wittek (2018, p. 20) analyses the evaluation discourse from the teacher's perspective and concludes that

Teachers in our society endure a great deal of criticism. Some of this criticism is, of course, justified, but some is also based on generalizations and dichotomies that lack constructive power to improve schools.

The logic seems to be that if students are not thriving, the teacher's classroom management and relational competence must be questioned. Similarly, if students perform below average in various tests the teacher's subject-specific didactic competence is deemed insufficient.

If we are to assess the teaching competences of a newly qualified teacher, research shows that most teachers improve their professional practice over time. The steepest progress is typically observed

during the first year of teaching, but a majority continue to make noticeable gains during the first three to five years (Bautista & Ortega-Ruiz, 2015; Kini & Podolsky, 2016; Kugel, 1993; Rasmussen, 2006a). Studies further show that newly qualified teachers gradually develop their relational competence, classroom management skills and subject-specific pedagogical competence, all of which have a direct impact on students' well-being and academic achievement in school (Nordenbo et al., 2008). Classroom management skills in particular appears to improve with accumulated teaching experience, and this competence is often described as a prerequisite for creating effective instruction (Ladd & Sorensen, 2017).

At the same time, educational researchers caution against treating newly qualified teachers as a homogeneous group, since they differ considerably and their developmental trajectories may vary (Kraft & Papay, 2014). Recognised scholars of teacher education emphasise that the quality, content and teaching methods of teacher education have a significant impact on graduates' learning outcomes and acquired teaching competences (Darling-Hammond, 2006).

Studies show that it is more the norm than the exception for newly qualified teachers to experience professional insecurity during their first year in the classroom (Hansen, 2012). They describe themselves as “more new than trained” and report feeling that they lack certain competences that more experienced teachers possess (Böwadt, 2022). This affects their professional confidence and their willingness to create innovative teaching.

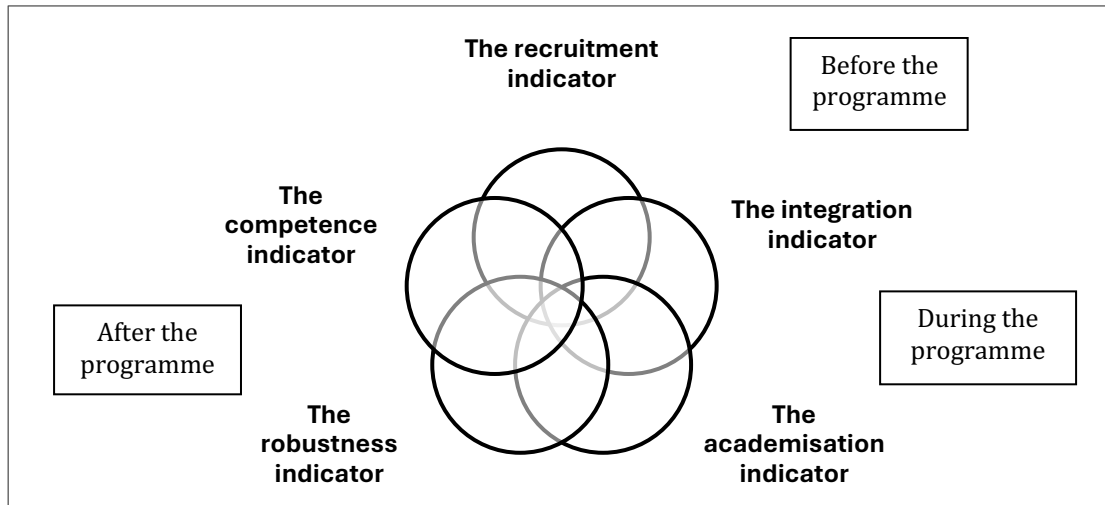
In summary, the competence parameter functions as a competitive measure by which teachers' work is evaluated by a wide range of stakeholders: parents, school leaders, policymakers, the media and the general public. Teachers must constantly respond to justified and unjustified criticism regarding the state and quality of education. It is worth noting that professionals such as preschool teachers, social workers and nurses are rarely subjected to the same level of public scrutiny and debate as primary and lower-secondary school teachers.

Discussion

Drawing on a diverse body of academic literature, evaluation reports and empirical studies, this article identifies, introduces and discusses five quality indicators that together form an analytical framework for assessing teacher education: recruitment, integration, academisation, resilience and competence. While each indicator captures a distinct aspect of quality, their interdependencies suggest that isolated assessments provide an incomplete and potentially misleading picture.

The model can be illustrated as follows:

Illustration 1



Overview of when the five quality indicators are active

Dropout in different forms and at various stages is a crucial factor in discussions on the challenges facing teacher education and the teaching profession. (1) Many potential applicants do not choose teacher education when deciding on a field of study, (2) the dropout rate in teacher education is high in several countries and (3) a significant percentage of newly qualified teachers leave the profession within a few years.

The illustration shows that it is problematic to focus on a single quality indicator at a time when discussing the quality of teacher education and the competencies of newly qualified teachers. Instead, the interplay, cohesion and continuous flow between the various quality indicators are decisive. “The whole is greater than the sum of its parts” aptly describes how the quality debate in teacher education should be approached.

The first indicator presented in the article is the recruitment indicator, which is active before the start of the programme. This indicator highlights that strengthening teacher education requires attracting as many and as well-qualified applicants as possible. This takes place in sharp competition with other degree programmes in a society. Research shows that applicants’ academic qualifications, which serve as their starting point, significantly influence the quality of teaching in teacher education (Sahlberg, 2010) and that their pedagogical mindset (and intrinsic motivation) before starting the programme affects what they learn during their studies and the teaching competencies they develop along the way (Russell & Martin, 2016).

The next two quality indicators presented in this article were the integration indicator and the academisation indicator, both of which are active during the programme. The integration indicator emphasises that in order to strengthen teacher education, efforts must be made to present the programme as a coherent whole from both the educators’ and students’ perspectives. This viewpoint is clearly expressed in recent evaluations of teacher education in Norway (NOKUT, 2024), Denmark (Uddannelses- og forskningsministeriet, 2024) and the Faroe Islands (Poulsen et al., 2024), all of which highlight the need to reinforce interdisciplinary elements within teacher education. This is, however, easier said than done, as the heterogeneity and fragmentation of teacher education are often described as embedded in its very DNA. To strengthen the theory–practice link in teacher education, all recent evaluation reports emphasise that, to promote greater integration, it is essential to establish interdisciplinary forums during the programme. These forums should bring together educators responsible for subject-specific courses, pedagogical courses and practicum, allowing them to share

insights and engage in dialogue about each other's teaching and responsibilities. The overarching aim of these forums is to promote coherence, collaboration, continuity and a logical progression across the different components of the programme. Yet, the path from vision to practice is often long and winding.

The academisation indicator refers to an educational policy initiative closely connected to the Bologna Process and the academisation trend in Nordic teacher education (Elstad, 2023). Requiring teacher education to meet the same organisational standards as other higher education programmes is a sensible educational policy initiative. Ensuring that teacher education is research-based and that teacher educators possess research competencies on par with other university lecturers is also an ambitious and beneficial goal (Murray, 2016). However, it is essential to emphasise that teacher education must always maintain a clear, practical orientation with the daily life of primary and lower secondary schools serving as a natural reference point (Darling-Hammond, 2006).

Nonetheless, research on teacher education has shown that in the university context it can be challenging to offer students' practical experiences and concrete examples from practice the same status and attention as a comprehensive theoretical curriculum.

In teacher education it is also important to note that these two quality markers (integration and academisation) can sometimes be in conflict. The requirement that teacher educators must be active researchers and regularly publish scientific articles can, at times, be difficult to reconcile with demanding teaching responsibilities.

The final two quality indicators presented in this article are the resilience indicator and the competence indicator, both of which become active after students have received their diplomas. The resilience indicator evaluates how newly qualified teachers feel mentally and psychologically when facing the diverse tasks, challenges and practical measures in primary and lower secondary schools. The central question is whether teacher education has equipped them with a didactic toolbox applicable to the realities of contemporary schooling in the 2020s and whether they have the motivation and desire to remain in the profession for many years (Plauborg et al., 2022).

The resilience indicator considers not only the newly qualified teacher's professional and personal competencies but also how the school system is structured to welcome new teachers (Heikkinen, 2020). In this context mentorship programmes and similar support measures are viewed as a professional "first aid kit" that can be crucial for the resilience and success of newly qualified teachers.

The competence indicator, the final quality indicator in the model, focuses on the newly qualified teachers' ability to create a learning environment where students thrive – measured through various well-being surveys – and achieve the academic goals set out in the Education Act and current curricula. This is assessed through national tests and international school assessments. It is also worth emphasising that the competence indicator is characterised by a strong output orientation and reflects New Public Management trends in the education sector. Emphasis is placed on measurable results and comparative analyses among OECD member countries. This indicator often attracts significant public and media attention – especially when school results fail to meet expectations.

When newly qualified teachers enter the profession these two quality indicators (competence/competition and resilience) can sometimes pull in different directions. Studies show that one of the main reasons many novice teachers feel stressed and consider leaving the profession is the increased documentation burden and numerous internal and external evaluations in primary and lower secondary schools. In the eyes of policymakers, however, the two indicators (both directly and indirectly) shed light on the relevance and impact of teacher education – that is, whether the competences acquired by student teachers during the programme are useful and effective in today's schools.

Conclusion and Future Research

This article has aimed to identify, nuance and expand the discussion of quality in teacher education. It has argued that quality cannot be assessed at a single point in time or within isolated components, but must instead be understood through the interplay of five interdependent quality indicators: recruitment, integration, academisation, resilience and competence. These indicators offer a holistic framework for evaluating how teacher education programmes respond to both internal pedagogical goals and external societal demands. While each indicator highlights a distinct dimension of quality, their interconnectedness means that improvements in one area often depend on conditions in others. A narrow focus on individual performance metrics is therefore inadequate; meaningful evaluation requires attention to the broader system and its internal coherence.

Future research should explore how these five indicators function in different national and institutional contexts. Comparative and longitudinal studies are especially needed to trace how programme design, recruitment practices and support structures influence teacher candidates' development and long-term retention. Additionally, further investigation into the professional role and identity of teacher educators – particularly under the pressures of academisation – could shed light on how institutional expectations shape teaching quality.

In sum, understanding what makes a teacher education programme “good enough” demands a shift from isolated indicators to a systemic, dynamic view of quality – one that reflects the complexity of the profession it seeks to serve.

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Fimm gæðaviðmið: Greiningarrámi til að meta kennaramenntun

Tilgangur þessarar greinar er að kynna ramma sem er settur fram til að meta kennaramenntun og stuðla að nákvæmari og dýpri umræðu um gæði hennar. Greiningin beindist einkum að samþættri kennaramenntun á Norðurlöndum og til grundvallar lá rannsóknarspurningin: *Hvaða mælikvarða ætti að nota til að meta gæði kennaramenntunar?* Í stað þess að líta á gæði sem stöðugt eða einhliða fyrirbæri er í greininni litið á þau sem sívirk og margþætt.

Til að svara rannsóknarspurningunni var farið kerfisbundið yfir margvíslegar heimildir, þar á meðal ritrýndar greinar, bókarkafli, norrænar samanburðarrannsóknir og matsskýrslur frá ýmsum löndum. Það efni var síðan greint með hugbúnaðinum NVivo 14 og var greiningarferlið byggt á þemakóðun. Niðurstöður leiddu í ljós fimm samofnar birtingarmyndir gæða – eða gæðavísa; aðsókn að kennaranámi, samþættingu, fræðivæðingu, seiglu og hæfni.

Aðsókn að kennaranámi nær bæði til fjölda og gæða umsækjenda og varpar ljósi á hvort áhyggjur þurfi að hafa af fækkun umsókna og brottfalli. Samþætting beinist að samfellu milli fræðilegra kenninga, kennslufræði og hagnýtra þátta í kennaramenntun. Fræðivæðingin endurspeglar þróun í átt að rannsóknartengdu námi og dregur athygli að togstreitu milli fræðilegrar nákvæmni og hagnýts gildis. Seigla felst í hversu vel nýútskrifaðir kennarar takast á við umskiptin frá námi í starf þar sem áhersla er á mikilvægi starfsþjálfunar og stuðnings á vettvangi skólans. Að lokum er hæfni mælikvarði á hvort útskrifaðir kennaranemar geti skapað inngildandi og árangursríkt kennsluumhverfi, að

teknu tilliti til utanaðkomandi þrýstings, svo sem frá stofnunum sem gera kröfu um ábyrgðarskyldu.

Niðurstaða greinarinnar er að þessir fimm mælikvarðar virki best þegar þeim er beitt sem samþættum ramma. Úrbætur á einum mælikvarða án þess að huga að öðrum geta haft ófyrirséð áhrif. Ramminn getur nýst í mati á kennaramenntun á heildstæðan og gagnreyndan hátt.

Lykilord: kennaramenntun, kennaranám, gæði kennaramenntunar, mat á kennaramenntun, háskólakennarar í kennaranámi, nýútskrifaðir kennarar

About the author

Dr Hans Harryson (hansh@setur.fo) is a lecturer in Educational Sciences at the University of the Faroe Islands. He currently serves as Deputy Dean at the Faculty of Education. His research focuses on: (1) teacher education as a distinct form of education; (2) the function and role of pedagogical subjects within teacher education; (3) the challenges newly qualified teachers face in practice; and (4) large classes, teamwork and co-teaching in Faroese primary and lower secondary schools.

Um höfund

Dr. Hans Harryson (hansh@setur.fo) er lektor menntunarfræðum við Fróðskaparsetur Færeyja. Hann gegnir um þessar mundir stöðu varadeildarforseta við menntavísindadeild háskólans. Rannsóknir hans beinast að: (1) sérstöðu kennaramenntunar (2) hlutverki og mikilvægi uppeldis- og kennslufræði innan kennaramenntunar (3) áskorunum sem nýútskrifaðir kennarar standa frammi fyrir í starfi og (4) kennslu í stórum bekkjardeildum, teymisvinnu og samkennslu í færeyskum grunnskólum.

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