Evaluating Education:
Normative Systems and Institutional Practices

Eyvind Elstad *Editor*

Teacher Education in the Nordic Region

Challenges and Opportunities

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Contents

List of Figures

List of Tables

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Chapter 1
Why Should People Outside the Nordic Region Be Interested in Teacher Education in the Nordic Region?

Eyvind Elstad

Abstract The Nordic region consists of five northern European countries—Norway, Sweden, Finland, Denmark and Iceland—along with their autonomous territories: Greenland, the Faroe Islands and the Åland Islands. The Sámi people also reside in the Nordic region.

Large parts of the Nordic region came late to development and prosperity. However, today these countries are some of the happiest and most prosperous, egalitarian and progressive in the world. The societies of the Nordic region are among the world's most well-organized, and their formidable economic growth is in part due to a longstanding commitment to education.

Large parts of the world are looking to the Nordic countries and the Nordic model of social organization, and interest in the Nordic comprehensive school system and teacher education arrangements is no exception. The tenets of Nordic education include the development of social justice, equal opportunities for all learners, participatory democracy and inclusion, all of which foster the development of competence and align with the broader values of the Nordic welfare state. A good education is a key to prosperity and well-being. The quality of education is undoubtedly linked to the quality of teacher education.

1.1 Purpose

This book is written for people who are interested in education policy in the Nordic region, including student teachers and their supervisors, teachers and staff in teacher education institutions, and policymakers and educational researchers in general, along with communities in the general public. Therefore, the target groups are both those in academia and people in the broader society. Its purpose is to present insights and research that are relevant to both insiders and outsiders regarding understanding

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of teacher education in the Nordic region. The authors do not form a common front on the complex question of ideal teacher education and the strengths and weaknesses of various teacher education programmes; they present a wide range of arguments and views. The authors believe that the varied contributions can be valuable in the debate about ideal teacher education.

Each author is solely responsible for his or her chapter. This book's contributions are not intended as self-congratulatory tributes. The articles are written on the premises of academia (i.e., with its demands for rigour, objectivity, sobriety and integrity). We – the authors – hope and believe that factual and case-oriented discussion can provide a basis for arriving at independent conclusions and help advance the debate. We thank collegues and the anonymous reviewers who have reviewed the chapters and offered constructive criticism, which has contributed to clarifications and nuances in each chapter.

For practical reasons, we have largely limited this book's scope to teacher education for primary and lower secondary schools. However, it also touches on teacher education for the upper secondary school level. Matters related to preschool teacher education and vocational teacher education are not addressed. This decision was not made because we believe these teacher education variants to be of less importance; it is simply a practical delineation to maintain the focus on the book's primary topic.[1]

1.2 The Nordic Region and Its Education Arrangements

Geographically, the Nordic region consists of the five northern European countries (Norway, Sweden, Finland, Denmark and Iceland), along with their autonomous territories: Greenland and the Faroe Islands (Denmark) and the Åland Islands (Finland). The Sámi people, an indigenous people living in Sápmi (the northern areas of Finland, Sweden and Norway), belongs also to the Nordic region.[2]

While teacher education in the Nordic countries has been explored earlier (Skagen, 2006; Nordic Council of Ministers, 2008; Blossing et al., 2014; Elstad, 2020), this book is, as far as we know, the first account of teacher education in the Nordic region which includes Greenland, the Faroe Islands, the Åland Islands and Sápmi (Chaps. 4–11). In addition to specific chapters from each area, the book also contains analyses across the Nordic region (Chaps. 1, 2 and 11–15). Those who work in teacher education institutions outside the Nordic region or conduct research into teacher education, may find the diversity of teacher education in the Nordic region academically interesting and possibly instructive.

The school model in the Nordic countries is distinctive; it differs from models in other parts of the world (Hopmann, 2006). All Nordic countries and autonomous

[1] This book project was made possible by grants from UiO:Norden/ReNEW and the research group TEPEC.

[2] About 1770 Sámi people live in Russia's Kola Peninsula

areas rely on an extended inclusive, comprehensive and undifferentiated model that values equity and eschews streaming until learners complete lower secondary school at the age of 15 or 16 (Blossing et al., 2014). However, even though school models in the Nordic countries have much in common, their teacher education programmes are quite diverse and different, and they are different in interesting and important ways. The inclusion of Greenland, the Faroe Islands, the Åland Islands and Sápmi, adds much to the complexity in the Nordic region. Therefore, we believe that this book will be of interest and value outside the Nordic region.

The school systems in the Nordic countries are part of a larger model of society that is known as the social-democratic Nordic welfare state (which differs from the liberal Anglo-American and corporate Continental models, Esping-Andersen, 1990, 1999; Kuhnle & Alestalo, 2017). The distinctive traits of the Nordic welfare state evoke both positive attention (e.g. "The next supermodel", *The Economist*, 2013) and dystopian associations (e.g., Sanandaji, 2016). International comparisons show, for instance, that we who live in the Nordic countries are among the happiest people in the world (Helliwell et al., 2021). The Nordic countries are also routinely at the top of league tables of almost everything, even economic conditions (*The Economist*, 2013). In the latest measurements of economic conditions, which are based on OECD statistics, the economic picture is not as rosy (Eklund, 2018; Eklund & Thulin, 2020). The common image of the Nordic region as a utopia must therefore be tempered by nuance. There have been heated debates about which Nordic attributes are admirable and which are not. Indeed, it is sometimes claimed that the Nordic societies succeed *despite* their typical welfare state arrangements: a subsidised and universal healthcare system; free education at the primary, secondary and tertiary levels; extended maternity leave; subsidised kindergarten arrangements and so on (Sanandaji, 2016). Some have even compared the Nordic countries to nations like Venezuela, where the state does not function successfully (e.g. Forrest, 2018). Although these highly critical voices may not dominate the debate, they do persist. In this book, interest in teacher education is woven into a wider societal considerations: the Nordic school model within the context of the Nordic model of society. We utilise a broad societal perspective to study teacher education in the Nordic region.

A reason why teacher education in the Nordic countries has received favourable attention, was the success of Finnish schools after the millennium, as evidenced in Programme for International Student Assessment (PISA) surveys. This phenomenon has generated interest in Finnish teacher education (Barber & Mourshed, 2007; Mourshed et al., 2010; The British Educational Research Association, 2014; Darling-Hammond, 2017) and in turn in other teacher education programmes in the Nordic countries.

It is the hope of the authors of the present book that it will reach a wider audience than solely teacher educators, school researchers and scholars in the social sciences and humanities. For example, readers interested in how societies function may be curious to discover what lies behind the external characteristics of the Nordic countries. Some may be interested simply in seeing schools and hence teacher education as elements of distinct national cultures. It is part of human nature to be fascinated by societies that are different from our own, and we need to access myths and ideas

about facets of society that are different in order to understand and appreciate our own society. Nordic branding has been an explicit phenomenon over the last decade: Nordic cuisine, the distinctive films characterised by Nordic noir. Nordic cultural expressions have been promoted by the Nordic Council, which seeks to provide a unified branding for all the Nordic countries.[3]

The Old and Current Myths of the North

Carta Marina, the marine map and description of the Northern lands, was the first map of the Nordic countries published in 1539 and created by Olaus Magnus. The North has since ancient times been seen as the barbaric North. The Nordic communities were late members of Christianity and were not considered particularly civilized. The stories of Nordic greatness flourished during the Renaissance. The first myths about the North were propagated by Olaus Magnus (1490–1557), a Swedish Catholic archbishop in exile after Lutheranism had taken hold in Sweden, who wanted to inform people in the southern parts of Europe about Nordic peoples, animals and customs. Magnus wrote Historia de Gentibus Septentrionalibus in Latin (History of the Nordic Peoples).

This occurred at a time when European countries were expanding their influence in other parts of the world and had increasing interest in foreign cultures. Magnus' storytelling became widely popular and an important reference on the peoples of the North. This marked a breakthrough for Europeans' knowledge of the Nordic region in the sixteenth and seventeenth centuries. Magnus's storytelling promulgated and entrenched the first powerful myth of the North. The past is still an active force in our Nordic identity projects and has brought us closer to our neighbours. Further myths and visions about the North have appeared in new shapes and forms and nurture the dreams of Nordic greatness. Since the late 1990s, the Nordic brand has been an explicit

(continued)

[3]The Nordics is a joint branding project of the Nordic Council of Ministers (https://thenordics.com/about)

phenomenon nurtured by the Nordic Council. In today's Europe, elements of Nordic style are associated with quality and known as trademarks and brands.

A map of the Nordic region.

1.3 Justifications for Nordic Co-operation on Teacher Education

The Nordic region has in 2022 over 27 million inhabitants spread over a vast geographical area. Sweden has about 10.4 million inhabitants, while Norway, Denmark and Finland have populations of 5.4–5.8 million inhabitants. Iceland has only 366,000 inhabitants, and the autonomous territories have even fewer (Åland: 30000, Greenland: 56600. Faroe Islands: 52600). The vision the Nordic Council of Ministers and the Nordic Council is "to make the Nordic region the most sustainable and integrated region in the world". This has implications for teacher education in at least four different ways.

First, Nordic collaboration to ensure a future of Sámi education and Sámi teacher education is a vital issue (Elstad, 2022). Today, formal organizational collaboration on Sámi teacher education is weak, but it is difficult to find a better justification for Nordic co-operation than the ambition to ensure a future for Sámi education and hence Sámi teacher education.

Second, there is an untapped potential for Nordic co-operation by creating opportunities for benchmarking quality dimensions in teacher education. Norway, Sweden and Denmark utilise student nation-wide questionnairies: the Study Barometer (Norway), the Student Mirror (Sweden), and Learning Questionnaire

(Denmark). Finland and Iceland, as well as the autonomous territories of the Faroe Islands and Greenland, do not have these types of nationwide surveys for higher education. Notably, these surveys provide essential management information for each country's education authority, and the measurements are used in public sector debates concerning teacher education, and within the individual teacher education environment. This information can be used by the national authorities of the individual countries and by networked improvement communities working to combine and spread ideas that provide innovation and learning to make teacher education more effective and efficient. To do a Nordic collaboration needs coordination across nations.

Third, the Finnish Åbo Akademi University starts teacher education in Sweden from 2023. The establishment of Finnish teacher education in Sweden can be the first step towards a new era of teacher education in the Nordic region. The vision is a Nordic university.[4] A joint Master's in teacher education under the Nordic Masters Programme (NMP) was set up by the Nordic Council of Ministers (NCM) in 2007, but was no realised. However, the prerequisites are in place for students with a Nordic bachelor to progress from national programmes to the NMP, e.g. as a result of the implementation of the Bologna Process and the work being done under the auspices of official Nordic co-operation. The question is whether other institutions follow up this trajectory and intensify Nordic co-operation (Silleborg, 2010). Today we see expanded Nordic co-operation in higher education. However, each Nordic country finances its own teacher education.

Four, initiatives have been adopted earlier within Nordic co-operation, for instance, a bottom-up endeavour among Scandinavian teacher educators within the last decades. A Scandinavian network for teacher education leaders is arranged in collaboration between Universities Norway, the Teacher Education Convention (Sweden) and the Teacher Education Leaders Network (Denmark). Such co-operation initiatives can be interpreted as a continuation of previous waves of Nordic co-operation (meetings between Nordic co-operation partners in education in the 1870s–1970s and later periods of Nordic co-operation, Hemstad, 2008).

1.4 Kinship Across the Nordic Region

The Nordic region boasts significant diversity in culture and social conditions, but also similarities. Nevertheless, it makes sense to discuss Nordics as a concept, as there is something that binds its peoples together in a kind of *kinship*. Today, there is a certain unity and harmony among the Nordic countries (although this has not always been the case). The languages of Norwegians, Danes, Swedes and

[4] The Danish teacher Jens Langkjær proposed a similar ide in 1880: 'About teacher education and about the establishment of a joint Nordic college for teachers' further education' in a journal named Vor Ungdom.

Swedish-speaking Finns are mutually intelligible.[5] As football fans, we cheer for our own country's national football team, but if the Norwegian national team does not qualify for an international tournament, I root for my Nordic neighbours' teams. In other words, I have an emotional commitment that I can transfer more easily to other Nordic countries than to other countries in Europe. I believe that I am not alone in experiencing my region and the world in this way. This is an expression of ties and bonds between the peoples of the Nordic countries.

Interactions between kinship peoples can sometimes resemble sibling rivalry, friendly feuds that are not now rooted in actual conflicts but are rather disagreements best understood as surface ripples. For example, we sometimes tease people in a neighbouring country by portraying them as a little bit stupid (Kagge, 2011); people laugh at such jokes, knowing they are generally not meant to be taken seriously. Danish football supporters call Norwegian football supporters 'mountain monkeys'. Swedes name Norwegian men as 'norrbaggar', which means 'rams from the north'. Norwegians name Swedish men as "söta bror" (sweet brother).[6] The use of nicknames is nevertheless friendly**.** People laugh at such jokes, knowing they are generally not meant to be taken seriously. But in time of crisis, people in the Nordic countries stand up for one another. For example, Norwegians, Finns and Danes who fled to Sweden during World War II received emergency help from people on the border. Another example is the Heimaey volcanic eruption in Iceland that began in January 1973; the lava destroyed an entire town. People of the Nordic countries raised money to support those who had suffered from this natural disaster in Iceland. There are several other examples of support of one Nordic people for another.

Throughout the ages, relations in the North have been characterised by both wars and alliances. The situation after World War II reflects a history of continuing formal co-operation among the Nordic countries and the aspiration for coordination of institutional arrangements, including schools and teacher education. This collaboration has proven significant in recent decades. The parliaments of the Nordic countries have co-operated in the Nordic Council since 1952, and Nordic governments have co-operated in the Nordic Council of Ministers since 1971. In the 1960s, the Nordic countries considered the idea of expanding economic co-operation in the form of NORDEK (Ueland, 1975; Sonne, 2007); however, that effort failed. In the following decades, co-operation schemes have continued as regional partnership. The partnership has also evolved in new areas, such as forums on teacher education. These forms of co-operation have continued as a consequence of past ties. Today, it

[5] Swedish, Norwegian and Danish are linguistically similar, especially in vocabulary and grammar. The explanation for this is that the Scandinavian languages have a common origin. Icelandic and Faroese are also examples of languages that are closely related and belong to the same language group as Norwegian, Swedish and Danish. Finnish, Sámi and Greenlandic are not related to any of the Scandinavian languages. Sámi and Finnish belong to the Finno-Ugric language family, while Greenlandic belongs to the Eskimo–Aleut language family. The people who use these languages are spread over a large area in the circumpolar north: Siberia, Greenland, Canada, Denmark and Alaska.

[6] The term 'sweet brother' comes from after the World War II. After 1945, a number of Swedes came and set up small stalls at the national border and sold food to the Norwegians, including sugar.

is fair to say that the dynamics of Europeanisation (Featherstone & Radaelli, 2003) have become increasingly important for the forms of co-operation between the Nordic countries (Sträng, 2015). Nevertheless, there are significant differences in their approaches to European integration. The membership of Sweden, Denmark and Finland in the EU (the European Union) makes clear that EU integration is a dynamic force that appears to be increasingly important. We do not know the long-term consequences of this fact. On the other hand, Norway, Iceland, Greenland and the Faroe Islands remain outside the EU and only follows of EU rulings to some extent.[7]

Education is the responsibility of member states in EU. However, the EU plays a vague supporting role in the education field (Lange & Alexiadou, 2010). It is uncertain whether common development trends vis-à-vis the EU will intensify, weaken or stay the same. International assessments monitor trends in learner achievement: PISA (Programme for International Student Assessment) have instruments that provide data that helps shape the ways that the EU educational experts and networks operate and the policy areas on which they focus (Grek, 2009). Thus, the EU's policy formulations can affect EU countries more powerfully than the Nordic regions outside the EU. In any case, teacher education institutions and schools are influenced by complex change processes at the national, Nordic, European and global levels. This complexity is reflected in several chapters (Chaps. 13–15) of this book.

Countries and the relations between them cannot be understood as stable structures, but as constructions in which processes of change are always taking place. For example, the idea of equality between people – a key value in all Nordic countries – must be constantly maintained and striven for if it is to be realised through political decisions. The development of a country or a region is the consequence of complex processes at both the micro and macro levels. There is an ongoing debate among social commentators about how societies should be governed and develop. Long-term perspectives on development trends in the European states (Shore, 2013) can provoke significant differences of opinion about, for example, the long-term goal regarding formation of a United States of Europe (Nijkamp, 1993; Fabbrini, 2010) versus regionalism, and the continued existence of the nation state as a "natural" unit (Keating, 1998). The situation today is even more delicate, as there are movements for independence in several parts of Europe, even within the countries inside the EU.

Although each nation state governs its own school and teacher education systems, supranational influences and trends cannot be denied. The question of why states exist largely boils down to the question of national identity. In Europe, there are tensions between national and regional identities, along with the idea of a common European supranational identity (Sträng, 2015).

[7] However, The European Economic Area links the EU member states and Iceland and Norway into an internal market governed by the same basic rules.

In the Danish autonomous territories of Greenland and the Faroe Islands, there is debate about whether they should break free of Danish control and become independent countries. So far, it does not appear that the struggle for independence has reached the boiling point. The Faroe Islands and Greenland mainly govern themselves. The idea of Faroese independence does not have the same support it once did, while the idea of independence for Greenland still smoulders beneath the surface. There is also a political party that works for independence of Åland Islands' from Finland, but it has little support. A tension between identities is also present among the Sámi people.

Teaching existed long before teacher education. Chapter 1 shows that with the spread of Christianity, education evolved in the North for priests and others who needed proficiency in reading, writing and theology. But this meant that formal education was highly limited. Nevertheless, the skills of reading and writing among a sufficient number of people became important for the evolution of a governing and administrative apparatus that was not inferior to that found in other, comparable regions. Written communication became important in building a power base for pursuing politics. Within the medieval dichotomy of power between regent and church, theology in the first schools also became important in the work of building up the position of the Catholic Church in the high north. After the Reformation, mass education arose over time. People should be able to read the Bible themselves. But many reluctantly went to this common school. Ordinary people had to read the Bible. To achieve civil rights (ie be able to marry), one had to complete confirmation education, which required at least reading skills and knowledge of the Bible. The one-room schoolhouse was the primary way of organizing schooling. Rote learning of Christian texts was common. No institutionalized teacher education was needed to implement simple memorization management.

An educational turn happened. A typical course of evolution was that teacher education become more and more necessary in the nineteenth century. As a consequence, initiatives were over time undertaken to create teacher seminaries. Dominant models developed in Germany (Kiel) were translated and adapted in Denmark. The evolution of the first institutionalized teacher education seminaries occurred at different times in the Nordic region: Blaagaard Seminarium (Denmark) in 1791, Lund (Sweden) in 1839, Trondenes (Norway) in 1826, Nuuk (Greenland) in 1845, Tórshavn (the Faroe Islands) in 1870, and Reykjavik (Iceland) in 1908. Finnish teacher training started in the Åbo Academy in 1640, but the first teacher seminary was instigated in 1806 (under Swedish rule until 1809). With the exception of which was a formal teacher training arrangement for teachers who were to teach Sami (Seminarium Scolasticum, Seminarium Domesticum og Seminarium Lapponicum were in business in the years 1717–1732), Trondenes Seminarium became the first publicly funded teacher education in Norway. However, the very first efforts were largely locally initiated teacher seminaries run by priests. Over time, however, the Nordic states (and later: the autonomous areas) took over responsibility for curricula and of teacher education. The first attempts to establish teacher education was limited to relatively short-term programmes. The duration of teacher education expanded over time, and teacher education at the secondary level was eventually

established. The evolution of teacher education into education at the secondary level took also place at different times in different Nordic countries. As teacher education evolved from the secondary level to colleges (in the 1970s) and later universities, it became an educational programme at the tertiary level of the Nordic education systems.

The establishment of the first professorships in pedagogy followed a tortuous path: Christian Levin Sander was appointed to the first professor in pedagogy in 1800 (at Seminarium Pædagogicum, which became a part of University of Copenhagen), but after his death the position of the pedagogy subject was unsecure until 1955. The professorships in pedagogy came at different times in the other areas: 1855 in Finland, 1908 in Norway, 1910 in Sweden, 1973 in Iceland and in 2012 in Greenland.

Finland (which also includes the Åland Islands) was a frontrunner in locating teacher education for primary school in university institutions. This trend is named *universitisation trajectory*, which means adaptions to academic standards (Menter, 2018). That Finnish decision was first made in 1966, but was not fully implemented until the end of the 1970s.[8] Finland thus chose a different strategy in the 1960s and 1970s than the other Nordic countries, which followed the British model with a binary tertiary level: a distinction between research-oriented universities and a polytechnic sector, with teacher education programmes following the applied academic tradition (Kyvik, 2004). Iceland, the Faroe Islands, Greenland and, to some extent, Norway and Sweden catched up to the idea of locating teacher education in universities in the early years of this millennium. How well these teacher education programmes have been integrated into universities, is an open question. Indeed, in Norway and Sweden, this process is yet not complete, and there are still teacher education programmes at some colleges. The pressure to academicise the content of teacher education and to promote the scope of research activities has become significant. Finland's five-year master's degree programme with a research thesis (Chap. 5) served as an inspiration and paradigm for the evolution of similar programmes with research-based professional ideals in Norway (Chap. 6) and Iceland (Chap. 8). Norway and Iceland have clearly followed the universitisation trajectory. The Swedish programmes are very diverse with an employment based route (KPU, new shorter supplementary pedagogical education) on the one hand and five-year programmes on the other hand (Chap. 4).

If teacher education reform in Finland can be compared to tango and its target-oriented forward movement, the change processes in Denmark can be compared to the cha-cha-cha, with movements forward, back and then sideways. Denmark has a markedly different teacher education programme from the other Nordic countries: a four-year bachelor's degree. The Faroe Islands and Greenland follow the Danish structure, but decides their own curricula. In Denmark, several reforms in teacher education have been carried out, including four since 1990 alone. A political

[8] In 1979 teacher education became university-level education with the qualification of a Master's degree in Education.

agreement was reached in 2012 on reforming teacher education. The new programme came into force in 2013, but it was being revised in 2015 and in 2022. The Danish Ministry for Higher Education and Science began an evaluation of the quality and relevance of teacher education in the autumn 2017, with the results published in January 2019. Three months later, the authorities commissioned a new expert group to create novel models for how teacher education at "a high international level" could be realised, and to discuss how "a more appropriate placement of teacher education" in universities and university colleges might be realised. This expert group's work was stopped in November 2020: the education authorities claimed that Denmark needed a broad boost in quality, and a new development group has in November 2021 proposed new suggestions of improvement in Danish teacher education. The intensity of change is significant in all Nordic countries except Finland.

Denmark (Chap. 7), the Faroe Islands (Chap. 9) and Greenland (Chap. 10), which follow Danish policy of higher education, have so far retained the four-year bachelor's degree in educating teachers. Thus Denmark, which has located teacher education for primary and lower secondary levels at colleges, appears as an outlier in the Nordic context. However, its overall approach is still mainly in line with the general development of teacher education in the Nordic countries: the evolution from a seminaries-based education with many general education elements, to a modern profession-oriented education (Chaps. 1 and 2).

Almost everyone has opinion about teacher education or at least about the school system, which is precisely how it should be in a democracy. The question of excellent teacher education and school systems is, to some extent, inherently subject to discussion and even controversy. The tension between professional and academic learning, between relevance and rigour, seems to be a never ending story. If a person has to think about teacher education, it is advantageous to become familiar with teacher education research and direct experiences of the relevant parties in teacher education. The Chaps. 4–11 on initial teacher education in the Nordic countries and their autonomous areas, and the presentation of the comparative study (Chap. 12), one of which is based on student teachers' experience in teacher education, contributes to the discussions of favourable features and criticisms and ideas for improvement. The question of how to realise what constitutes ideal teacher education has led to tensions among conflicting and even opposing expectations, and the debate over the solutions to the challenges created by those tensions is well served by a case-oriented and realistic discussion. It is important to handle the tensions and conflicts (Chaps. 13–15) in a constructive manner. This book as a whole presents information that provides a better basis for considering issues surrounding teacher education in the Nordic countries.

Despite national differences, the challenges in teacher education do have some common features. For instance, the tension between professional and academic mission is endemic in the Nordic region as well in other areas (Labaree, 2018), and teacher education institions in the Nordic region still struggle with the balance between rigour and relevance. This struggle is explored in Chaps. 4–11.

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Part I
The Evolution of Teacher Education in the North

Chapter 2
An Overture: A Historical Overview of Political and Cultural Antecedents of the Nordic School System and its Variety of Teacher Education Programmes

Eyvind Elstad

Abstract Trade and contact between people in the northwest corner of Europe and other parts of the world can be traced far back in time. The attacks and raids of Vikings created terror in parts of Europe, but through Christianization, the people in the north gradually assimilated the values of the other European regions. The transnational Catholic church influenced the order of several societies. Schools in the Nordic region at first provided training for the priesthood. With the Reformation, the transnational influence of the Church was greatly weakened. In the 18th century, societal authorities introduced a new school model: mandatory public school for all. This public school helped spread literacy and more in-depth knowledge of Christianity. Over time, the idea emerged that schools should serve a broader purpose than spreading Christian knowledge; the need for teacher education was recognised as a logical consequence. Substantial improvements to the school system took place through trained teachers and the expansion of schools' content. The changes in Nordic societies laid the foundation for and were influenced by improvements in the school system, indicating a renewal of the school systems. Teacher education evolved from a seminary-based education with many general education elements, to an extended education.

2.1 Short Historical Overview

We cannot escape a historical explanation of the current situations in the Nordic region. This chapter is primarily written – without any academic pretensions - for people who do not know the historical development of the Nordic countries and autonomous areas (Denmark, Finland, Iceland, Norway, Sweden, the Faroe Islands,

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Greenland, Åland and Sámi areas, Sápmi). I focus on some important political and cultural antecedents of the Nordic school system and the varieties of schooling and teacher education programmes. The purpose of the overview is to provide a broad, conceptual framework for understanding how five Nordic states grew over time and to discuss political and cultural antecedents of the Nordic school model.

The fact that most people in Scandinavian countries understand one another's languages came to be important for the idea of kinship peoples ("pan-Scandinavianism") in the nineteenth century, neo-Scaninavianism 1895–1905 and its significance for later bottom-up processes and initiatives of formalised co-operation between Nordic countries in the twentieth century. Although a broad-brush narration of history cannot detail the nuances of each country's educational history or account for the evolution of its school system as part of the development of society and the welfare state as we know it, the fact that *there are currently five Nordic countries is mainly due to the evolution of distinct national identities*. In addition, we can talk about distinct cultures and identities in the Nordic autonomous areas (among Faroe Islanders, Greenlanders and Ålanders) and in the Sami population. The reason for this is explained in this chapter and later chapters. The contours of the national identities naturally go far back in time, but the period from 1789 through the end of the Napoleonic Wars in 1815 is important for understanding the ideas of freedom and independence that arose in Norway and Iceland. Before a nation can declare independence, it must develop a national identity and certain institutions; these are processes that can take time. The school became an instrument for building national identities in all Nordic countries. On the other hand, *the relations among the Nordic countries are also based on the idea of kinship peoples*, which makes their relations closer than is found in many other places in Europe. At the same time, it is important to see the development of Nordic culture as part of the common European culture.

The idea of kinship peoples, however, was not so strong that the pan-Scandinavian and neo-Scandinavian movements of the nineteenth century gained sufficient support. Those who worked for inter-Nordic co-operation experienced disappointments in the middle of the nineteenth century and at the turn of the twentieth century. A Nordic union could not be implemented in the same manner as in Germany and Italy, but the cohesion among the Nordic countries made it possible to establish deeper forms of interparliamentary and intergovernmental co-operation that were realised in the first decades after World War II.[1] This has meant, among other things,

[1] The Nordic countries followed very different strategies during the World War II (1939–1945). Great Britain invaded Iceland and the Faroe Islands while Germany invaded Denmark and Norway. The United States built military bases on Greenland. The Soviet Union attacked Finland in November 1939. The Winter War against the Soviet Union in 1939–1940 resulted in large Finnish losses and land ceding, and drove Finland over to the German side during the so-called Continuation War in 1941–1944. In the years 1941–1944, Finland was in a loose alliance with Germany to defend Finnish interests during the war between Finland and the Soviet Union. When the German withdrew fortunes of war in Europe had turned in the winter of 1943, and the Soviet armies began to approach Finland, a complex negotiation between the two was initiated (April 1944). Finland broke the initial agreement with Germany, and during the German retreat from Finland, there were

that the structural features of the school models in the Nordic countries and the curricula have significant similarities. While the evolution of these similarities must be seen in connection with historical conditions (for instance, social democratic parties have been involved in changing patterns of collaboration with liberal and socialist parties, Blossing, Imsen & Moos, 2014), the Nordic countries have long been inspired by one another, especially after World War II. The willingness to learn from one's neighbours is also significant for how teacher education in the Nordic countries is organised. The influence of the Finnish subject teacher education model, with its emphasis on school-based specialisations and master's-level education, is clear in some Nordic countries.

The most important task of the schools in the north was initially Christian education for priests, a task carried out first by the Catholic Church. The Protestant Reformation in Sweden began in 1527 (and was consolidated in 1593) and was implemented in Denmark/Norway in 1536/1537. With the Lutheran Reformation in Sweden, Denmark and Norway (and consequently Iceland, Greenland and the Faroe Islands), the task of Christian education was taken on by the Lutheran state church. The state church was given responsibility for teaching. I mainly look at the orthodox practice of religion as part of an oppression of the vast majority of the population. The rise of pietism (the first decades of the eighteenth century), on the other hand, is more difficult to explain as part of a society-suppressing system. With the expansion of the curriculum, the goal of schooling was to embrace the interest in school's ability to improve social, economic and moral conditions and produce a qualified workforce. The influence of the church diminished in the nineteenth century. The early emergence of enlightenment in the Nordic region helps explain progress and mobility in societies and, later, the evolution of the modern school in the Nordic countries and their modern teacher education programmes (which are topics of the next chapter).

2.2 The Spread of Literacy

Little evidence remains of prehistoric times in the North (Coles & Harding, 2014).[2] Children learnt their mother tongue by listening, and acceded to social norms and their place in the hierarchy by observing and experiencing. The oldest source, Tacitus (98), tells that the people north of Rhine trained their youth. However, Tacitus emphasized peculiar cultural features that differed from what he was familiar with: "the women support themselves by hunting, exactly like the men;

bloody battles between Germans and Finns. In other words, the Nordic countries and their autonomous territories have very different experiences under World War II, but no common experiences (as claimed in Frønes et al., 2020).

[2] The knowledge of northern tribes is fragmentary. Archaeological material provides information about the material culture, but the findings are sparse. Tacitus (98) is the only written source.

they accompany them everywhere and insist on taking their share in bringing down the game". I guess he was interested in women?

What seems certain is that people of the north had some limited contacts with the rest of Europe, but they were outside the influence of the Roman Empire.[3] The Romans had a well-established written language. Literacy was widespread in many parts of the Roman Empire, and there were even libraries. Writing was used for political correspondence, storytelling, graffiti and later the spread of the Christian message, among other things. A controversial issue is the connection between runic writing in the north and the Roman writing system.[4]

2.3 The Emergence of Northern Regencies

The viking raids (about 800–1050) brought wealth, but the vikings also brought back cultural and political impressions that were important for the later evolution of the three Nordic regencies: Denmark, Sweden and Norway (Brink & Price, 2008). Population growth was important for the development from chiefdoms to regencies. However, these regencies were merely rudimentary and loose associations of communities. The Norwegian aristocracy was in the High Middle Ages more united about the monarchy with which it had common interests than was the case in Denmark and Sweden. The High Middle Ages was the formative period in the evolution of the typical Western and Central European state (Backman, 2003). This is also true in the north. A nationwide and strong system of government developed also in the Nordic regencies, where the aristocracy became a state-supporting and state-building elite (Moseng et al., 2007; Orning, 2008). The aristocracy consisted of both secular and clerical groups that could rival internally and externally, while the kingdom was a tool for the aristocracy to serve the interests of the aristocracy (Opsahl, 2008). Likewise, there was an occasional rivalry over time between the Nordic states.[5]

Although the high north remained a periphery in relation to Western European culture, the Catholic Church linked the three Nordic regencies more closely to a community of European political and ideological thinking of the twelfth century (Berend, 2007). Christianity became a culturally centralizing force. The church

[3] The border between Romans and tribes in what is now Germany was determined along the Rhine and Danube.

[4] However, runes (known from AD 150) were used to write various languages in the North *before* the adoption of the Latin alphabet and for specialized purposes afterward. No known runic inscription can with certainty be dated to be older than from the 200 s. The resemblance to the classical alphabets is so prominent that one must assume that the runic alphabet must originate directly or indirectly from them. Some assume that the runic alphabet was created in Scandinavia as a deliberate transformation of the Latin alphabet (Jacobsen & Moltke, 1941–42). In an indirect sense, we can say that cultural impulses from southern Europe were spread to the north.

[5] The Dano-Norwegian Realm was at open war with Sweden in 1471, 1521–23, 1611–13, 1643–45, 1657–58, 1658–60, 1675–79, 1700, 1709–20, 1788–89, 1808–09 and 1813–14.

under the leadership of the archbishop entered the political scene vis-à-vis the regents (in Denmark: 1104, in Norway; 1152, in Sweden: 1164). The church became a significant social power. The archdiocese was directly subordinate to the papacy in Rome. The universal ecclesiastical clergy reflect the contact between the high north and Western Europe. A Latin scriptural culture was introduced.

In the effective leadership and administration of a regency, written communication has always been necessary. Thus, a limited number of people who mastered the art of writing was required. The regent's administration needed writers. Literacy became important for the administrative apparatus to function in the Nordic states. The cathedral schools recruited men who could write, and some of these learners became employees of the administrative apparatus. Thus, the secular and the ecclesiastical elites had complementary interests. Together they could control the non-aristocratic population. The scriptural culture became more important for the governing body, and the royal power employed the men of the church in the administration. Indirectly, therefore, cathedral schools as a place of learning to read and write became important for the development of public administration. The relationship between regency and church was ambivalent, but both institutions came to expand their power side by side (until the Reformation).

The medieval education system[6] was imported unchanged from throughout Europe (Jaeger, 2013). During the fourteenth century, there was an increase in growth of universities around Europe, and some universities evolved from cathedral schools. Uppsala University, founded in 1477 by the Primate of the Catholic Church of Sweden, was the first university in Scandinavia and grew out of an ecclesiastical centre. The University of Copenhagen was founded in 1479 by royal decree which was approved by the Pope. The medieval university was mainly a school for theology, but with the increasing growth and urbanization of societies, a demand grew for professional clergy.

A common Scandinavian union was established in the late Middle Ages to prevent German economic and political expansion to the north (Gustafsson, 2006; Imsen, 2007). In this way, the Nordic societies managed to preserve their uniqueness and ensure political autonomy under pressure. However, the nobility in Norway was seriously weakened in this process (partly due to the lack of male heirs who could take over the throne, the Danish regent's neglect and partly due to plague epidemics). The common interests of power-seeking Danish regents and the Norwegian aristocracy unraveled, and Norway became a subject to Danish guardianship in 1537–1814 (Imsen, 2002).

[6] Lund Cathedral School, which dates to 1085, is the oldest educational institution in the Nordic region (Blomqvist, 1951; Pedersen, 2010). Later, Latin schools spread to Hólar (Iceland) in 1106, Nidaros, Bergen, Hamar and Oslo (Norway) in 1152/1153 and Uppsala (Sweden) in 1246, along with several Danish cities. However, the educational arrangements were limited and conducted by three bodies: the cathedral schools, the monasteries and the cities. The Latin school system came to the Finnish area and the Faroe Islands 200 and 462 years after Lund, respectively.

2.4 The Reformation

The Reformation is the term for the religious and cultural upheavals (originating via neo-religious movements) that took place in large parts of Europe in the sixteenth century and led to the division of Western Christianity (Cameron, 2012). The Reformation contributed politically to the breakup of supranational medieval structures in Europe, represented by the Pope (Chadwick, 1990). The Catholic Church had increasingly wielded power in northern societies. The Church owned great tracts of land and possessed vast fortunes, and monarchs perceived the power and wealth of the Church as a threat. For monarchies, therefore, the Reformation was an opportunity to remove this source of power and seize opportunities for themselves (Kent, 2008; Jespersen, 2011). Autocracy, orthodox Christianity and warfare fit into a holistic picture of oppressive states (Anderson, 2013).

The regent became the head of the Church. With nationalisation, the education of secular officials became more common (Johansson, 1977: Johansson & Graff, 2009). Priests were now given the responsibility of introducing the populace to the Christian faith. The school of the commons for both boys and girls was in its origin a subdivision of the Protestant church. However, for many lay people the teaching was a burden. The Reformation led to a sharp decline for the schools in the north, which lasted for most of the sixteenth century. Building a completely new infrastructure for the Lutheran school that replaced the Catholic institution took a long time.

The church's power over teaching formally existed in Sweden until 1859 when the state Board of Governors for the school system was formed. In Denmark-Norway, the situation was different. The Danish-Norwegian king Christian VI was a supporter of radical pietism and introduced confirmation as a measure to combat lawlessness. The influence came from the Prussian town of Halle (Engelhardt, 2019; Whitmer, 2015). Confirmation and later new ordinances in public schools in the composite country of Denmark-Norway were introduced in 1736, 1739 and 1741. These became key events and created a lasting effect through the establishment of a school system. The school was to spread and consolidate a pietistic Christian doctrine. Pietism introduced the common school, the frequent participation in worship services, hymn singing, devotionals in the home and reading in the devotional book. The confirmation scheme entailed new requirements for schooling; no children should be admitted to confirmation until they had gone to school and acquired the necessary knowledge of Christianity (Skovgaard-Petersen, 1986; Karlshøj, 1997, p. 123). Where there were no schools, priests and bell ringers were to remain in charge of teaching, but this ordinance specified general schooling requirements. In schools in small places, there were often 7 different year groups in the same room. First, children would learn to read; then they would use their new reading skills to learn good Christianity (Ydesen & Andreasen, 2014). However, throughout the eighteenth century and well into the 19th, the number of illiterate people was not insignificant as there were large regional variations. Despite this, the spread of literacy for large sections of the population was an interesting Nordic feature compared to other parts of Europe (Vincent, 2003).

Pontoppidan's Catechism (1737) was heavily used in schooling and influenced Danish and Norwegian children's religious thought and practice (memorization of questions and answers) for many years. In such a school, the teacher was primarily a person who was to check that the students knew their Christian teachings. The need for teacher's professional qualities was hardly perceived as necessary, and therefore the pedagogical part of the teacher's professional tasks was not emphasized either.

Pietism was challenged by rationalist theology in the late eighteenth century. This had an impact on the curriculum, which was broader. The one-room schoolhouse was a typical way of organizing schooling. Over time, this arrangement was replaced by age-graded schools. Teacher-centered instruction was the prevalent pattern of teaching.

The lack of skilled teachers was a major problem in schooling. The need for teachers who could practice the profession with something more than teaching the memorization of Christianity was significant. There were initially no seminaries to train the teachers, so that had to be taken care of by more senior students, bell ringers, retired soldiers and old craftsmen. The bishops supervised, and their visitation reports did not always give teachers a favourable review. However, those reports are evidence of an emerging – and important – school tradition; the need for qualifications to perform the teaching job was recognised.

The first teachers' seminary startet in 1781 in Kiel (the Duchy of Holstein, which belonged to the Danish king). The first institutionalized teachers' seminary in the Danish part of the Danish-Norwegian monarchy started in 1791 (Blaagaard Seminarium in Copenhagen initiated by The Great School Commission). This seminary became the first government-financed teacher education. The teacher seminary, inspired by the first seminary in Kiel, was a new type of institution in the Danish-Norwegian union (Markusssen, 2005). Other teacher seminaries (often seminars organized by priests) were mainly short-lived and not widespread, and the supply of trained teachers was unreliable and uneven. In parallel with the development of the public school, teacher education had to be intensified. Similarly, the public schools had to be improved and their curriculum broadened beyond preparation for confirmation and education in Christianity. In the nineteenth century, national school systems were developed over time. Both state and private teacher seminaries were started to meet a growing need. The state took more responsibility for schooling and teacher education while the influence of the church was reduced. The school was gradually liberated from ecclesiastical supremacy.

At the beginning of the nineteenth century, the school picture became more varied, with peasant schools in the countryside and civic and common schools in the cities, alongside the Latin schools. This was a parallel school system. The sons of the peasants became peasants, and the sons of artisans became artisans. The differences were reproduced through the education system. A debate on parallel school system versus comprehensive school system was intensified across parts of the Nordic region, but the realization and the pace of the comprehensive system were uneven.

2.5 The Contours of the Current Five Nordic Countries Emerged

Sweden was an emerging European superpower in the seventeenth century (Kent, 2008), but The Great Northern War at the beginning of the eighteenth century meant the end of Sweden's great power era. National feelings flourished in the 18th and 19th centuries: from the beginning of eighteenth century in Sweden, from 1740s in Denmark, from the 1770s in Norway, from the 1830s in Iceland, and from the 1860s in Finland. Distinct national identities emerged.

By the 1814 Treaty of Kiel, the King of Denmark-Norway was forced to cede Norway to the King of Sweden. A struggle for independence took shape in Norway. Norway became independence in 1905 after the dissolution of the Union between Sweden and Norway. A struggle for independence arose also in Iceland. Iceland received a constitution and limited home rule in 1874. The Danish-Icelandic Act of Union gave Iceland independence in 1918. This was followed by the severance of all ties to Denmark with the declaration of the republic in 1944. Although there were thoughts of Finnish independence in the eighteenth century, the Finnish desire for independence became much more urgent in the early 1900s (Lavery, 2006).[7] This meant that teacher education became a task for the national authorities in each country. Teacher seminaries arose, but the pace, the rate and the intensity of teacher seminaries varied across the Nordic region.

2.6 Waves of Scandinavianism

In the latter half of the nineteenth century, movements arose to promote associations between independent areas of Europe. This was the age of unification in Germany and in Italy. Similar ideas were emerging among Nordic citizens. Scandinavianism was a pan-nationalist movement that drew its rationale from the kinship among the Scandinavian peoples, and which from the mid-1800s influenced the policies of Denmark, Norway and Sweden, all of which tried in various ways to bring their

[7] In 1814, the king of Denmark-Norway was forced by the Kiel Treaty to cede Norway to the king of Sweden, but Denmark retained the Faroe Islands, Iceland and Greenland. However, emerging national movements and the Kiel Treaty aroused opposition in Norway. A Norwegian independence movement arose, and a constitutional assembly declared the country independent. After a brief war, the Swedish king agreed to Norway's formal independence within a union with Sweden, known as the United Kingdoms of Sweden and Norway (1814–1905). Norway gained full independence from Sweden in 1905 and founded a new monarchy. Finland was an autonomous part of the Russian Empire between 1809 and 1917. The powerful Finnish nationalism that emerged contributed to Finland being declared independent after Russia's October Revolution in 1917. After a bloody civil war, Finland became a republic in 1919. Iceland's struggle for independence culminated in independence in 1918 (though in a personal union with Denmark) and the founding of a republic in 1944. The contours of today's five Nordic countries had emerged at the end of the eighteenth century, but they did not settle into their present configuration until the mid-1900s.

populations closer together culturally and politically. The Nordic region became an imagined community. The question of a Nordic co-operation on school issues (Almqvist, 1846) and even political union (Hemstad, 2008) was central from the mid-1840s and decades after. After the Second Schleswig War in 1864 (when the United Kingdoms of Sweden and Norway did not come to Denmark's rescue), it was impossible to convince Denmark to join the Swedish-Norwegian union. However, some co-operation arrangements arose and continued. The historian Ruth Hemstad (2008, 2010) has highlighted the "Indian summer" of inter-state co-operation that emerged afterwards: collaboration between voluntary organisations, including networks of schools, academics and experts, sports and leisure organisations and political groups. A strong Scandinavian wave arose among and the years after (with a peak in 1905 with a meeting of 7000 educators from the Nordic region, Grauers, 1961). Teacher educators as well as teachers attended these meetings. It is natural to see these phenomena as antecedents to the multisectoral, in-depth co-operation between Nordic countries in the last decades. Grassroots co-operation remains still a basis for formal collaboration.

2.7 Social Development and Education

The differences in social development in the Nordic countries and their autonomous territories are too broad a topic to be summarised in a simple history of common steps (see Chaps. 3, 4, 5, 6, 7, 8, 9, and 10). But some main features need to be summarized. The natural economy of the Nordic societies were gradually but unevenly transformed into monetary societies (Grytten, 2022; Myhre, 2021). The development of society had an impact on the school's development. Significant industrial growth took place especially in Denmark, Sweden and Norway in the first decades of the nineteenth century, with industry gradually replacing agriculture as the leading economic sector.

Intensive agriculture and quality processing became important in Denmark, which has a comparatively limited natural bounty (Persson, 1993). Prerequisites for industrialisation and economic growth were liberal laws that ensured predictability, the major investments of the states in physical and economic infrastructure, borders open to foreign trade, and better educated populations that provided access to more competent and flexible labour. This last point meant strengthening schooling for most people who thus had better opportunities to adapt to the changing situations in working life (Schmidt et al., 2018).

The academic content of the school was an important topic of consideration. In the latter part of the nineteenth century, the need for more coherence in the educational system was emphasised, which led to the renewals of school systems at the end of the nineteenth century and the beginning of the 20th. In the development of the industrial society, a tightly divided school was established, based on age groups (Persson, 1993). The school curriculum was divided into subjects, and timetables for teaching were developed. The school was organized with systematics and

standardization. A "grammar of schooling" emerged. The teachers established themselves as a distinct group with its professional organizations.

It took time before the comprehensive school system, for which the Nordic countries are so well known, became dominant (Blossing et al., 2013). The transition from a school that was to spread and consolidate a Christian culture to a common primary school with a broad portfolio of school subjects took place gradually. Industrial growth took place in diverse sectors and reflected the differences between the countries with regard to natural resources. Educational institutions emerged, which meant more specialised competences were required to practice professions. This led to an interplay between knowledge development and economic development (Telhaug et al., 2006). However, the great leap in mass education that went beyond elementary schooling towards the upper secondary and tertiary levels of education, took place after World War II, a topic for the next chapter.

One development common to all the Nordic countries was the mechanisation of agriculture and fisheries, which led people to move to the cities to take on wage labour to earn a living. Industrial development started later in Finland and Iceland than in the other Nordic countries (Blossing et al., 2013).[8]

Overall, then, we can say that development in the Nordic countries and their autonomous territories was uneven and cannot be easily described in overarching terms, despite the historical similarities between the countries.[9] The democratisation of the Nordic states took place, establishing the right to vote for all. National identities were strengthened. Class societies existed, with contradictions and conflicts between employers and employees. Labour movements broke through, and political parties were formally founded. However, tensions between employers and employees were eased through Scandinavian co-operation agreements (Sejersted, 2021).

Along the Arctic coast around Greenland and in areas of Norway, Sweden, Finland and Russia, Indigenous peoples (Inuit and the Sámi people) had developed a way of life and techniques adapted to their very demanding natural surroundings. Their hunting of fish, birds, marine mammals, and reindeer husbandry, were driven by available resources at different times of the year and were geared towards natural households and a modest amount of barter. This knowledge base of skills, which was conveyed from generation to generation (biologically primary knowledge and skills, Geary, 2011), gave the Indigenous peoples the ability to survive under harsh conditions. Schools and Christianity were promoted to the Inuit and the Sámi

[8] However, since these countries have become independent, there has been some industrial expansion. Sheep products comprised a large share of exports from Iceland and Faroe Islands, but later fish products became more important. Mechanised fishing vessels and the fish industry became important. Ultimately, the fisheries became the main basis for the economies of Iceland, the Faroe Islands and the Åland Islands.

[9] Formal freedom of expression was constitutionally established in Sweden by 1766, in Norway by 1814, in Denmark by 1848, in Åland: 1922, in Iceland: 1944, in Faroe Islands 1948 and in Greenland 1979. Over time the Nordic region has continuously been expanded, democratized and seized by peasants, workers and women, to reform the societies.

people in the eighteenth century (Chaps. 9 and 10), but the schools and missionaries promoted values that often were disdainful for the Inuit and the Sámi societies. The significant cultural distance between these cultures and the influence of the state through school and mission created painful wounds for many.

2.8 School Development Towards the Breakthrough of the Comprehensive and Extended School System in the Nordic Countries

In the 1800s, the school picture in the Nordic region became more varied. The civic schools in the cities consisted often partly of free schools and partly of finer, fee-charging schools. The Nordic countries had several parallel school systems: one for the majority of the people, another for the elite or children from the citizens of cities. School reforms were legislated and implemented at different times, but demands grew across the region for common schools to be improved (Telhaug et al., 2006). Initially, that effort led gradually to laws on common schools. This happened at different times in the Nordic countries, but the succession of changes is quite similar. Compulsory schooling started at the age of seven or eight. The most able learners from the primary school could then transfer to a three-year secondary school. The evolution of a common coherent school system took place over a long period of time and in many stages (Telhaug et al., 2006). New subjects could be included in the subject area, and in many cities the teaching time was extended.

The structure and purpose of the school and teacher education became part of the political process in the nineteenth century. A number of teacher seminaries were established. The state was made responsible for teacher education; teaching was increasingly carried out by seminary-trained teachers. It is important to consider the evolution of schools in light of societal development in general.

The need for coherence in the varied school picture grew. Sweden is an example here. It was in 1842 that the primary school – for both boys and girls – was legislated in Sweden by the Riksdag. In 1919, primary schools in Sweden were coordinated into unified six-year schools. In 1927, the connection between the primary school and higher levels of education was strengthened. With that year's school reform, secondary school would be either four years and based on primary school. In 1962, the Riksdag decided on a new compulsory school as a replacement for primary and lower secondary schools. This school arrangement would last for nine years and be divided into three stages. As detailed in the next chapter, there was a breakthrough for the extended, comprehensive school system in the 1960s and 1970s:

A comprehensive school system in Nordic terms refers to a unified, unstreamed school system where all learners, despite academic and economic backgrounds and resources, are enrolled in the same age-based school (Carlgren, 2009, p. 633).

Some broad Nordic **trends of evolution for school during the first half of the twentieth century** must be emphasised (Telhaug et al., 2006; Richardson, 2010; Blossing et al., 2013):

- Quantitative expansion of schooling, through more learners, more academic work and more teaching, and an extended academic year.
- Qualitative development of schooling, through fewer learners per class, better trained teachers, better school buildings and more access to learning resources.
- Modernised curricula, such as modern languages replacing classical languages, and social studies becoming a school subject.
- A more flexible and coherent education system emerged through better integration between primary, lower secondary and upper secondary levels, with easy passage between them.
- Secularisation of schooling by freeing the school from the influence of the church and replacing Christian education with teaching in religion and ethics.
- The influence of schooling on democratisation led to increased opportunities in education for all, schools which should be relevant for all, and education for democratic attitudes; the school was to prepare citizens to become active participants in democratic processes.

The school became an institution among several public institutions and part of the public apparatus. The school sorted students, and those who left school after the compulsory primary school got work as unskilled labour. It was functional that some left school, while others continued their education. The education maintained the labour market's hierarchy from unskilled to skilled labour, as well as education to occupations that provided particularly good wages (by the standards of the times).

2.9 The Nordic Route to Prosperity

The Nordic countries are today among the world's richest countries (Grytten, 2022; Myhre, 2021). But how did these countries' journey towards prosperity begin? In the nineteenth century, Western Europe and North America had the richest and most dynamic economies in the world. World trade increased between 1820 and the outbreak of World War I in 1914. As far back as 1800, the Nordic countries had been less developed than the most successful Western European countries (United Kingdom, the Netherlands, Switzerland, Portugal and France, Bairoch, 1976). The Nordic region was located on a periphery in the northwestern corner of Europe. In 1860 the continental European countries and the Meditarian countries had higher GDP per capita than the Nordic countries. Parts of the Nordic region also experienced significant economic development in the nineteenth century (Myhre, 2021). However, by the beginning of the twentieth century, the Nordic countries (except Finland) were above the European average level (Bairoch, 1976). At that point, they embarked on what may be called modern economic growth by dramatically improving the living conditions of most of their populations (Grytten, 2022; Henriksen,

2006; Cappelen & Larsen, 2005). The sensational growth took place somewhat unevenly. Iceland, the Faroe Islands and Greenland made strides from being some of the least affluent areas in Western Europe in the first half of the twentieth century (Grydehøj, 2020; Johannesson, 2013; Laksáfoss, 2020). Iceland had a low per capita gross domestic product at the start of the twentieth century, but its economic growth since World War II has been much higher than many other countries; Iceland has over time been transformed from a poor country into one of the world's wealthiest (Steinsson, 2018). However, the economies of Iceland, Greenland and the Faroe Islands were and are, however, highly vulnerable to short-term fluctuations in the volumes and prices of natural resources on the world market.

The Nordic countries benefited from their proximity to large, affluent markets, especially the United Kingdom, France and Germany. The region's thriving export industries had strong positive ripple effects and undoubtedly contributed to its increasing prosperity (Kristensen & Lilja, 2011). Economic freedom has also increased since 1800, with the development of free markets and much greater choice for both producers and consumers. An educated population, an efficient civil service with little corruption, a high degree of legal probity, and stability and freedom of expression, along with better allocations for infrastructure, all contributed to the development of Nordic countries as free and open societies (Grytten, 2022; Myhre, 2021). However, it was not until somewhat later that true Nordic welfare state systems emerged.

Strong economic growth after World War II was the financial foundation of school reforms, social reforms, reforms of teacher education and expensive welfare arrangements:

> Historically, the Nordic model of education has been based on a vision that schools should be inclusive, comprehensive, with no streaming and with easy passages between the levels. This concept of a School for All has been closely related to the development of the welfare state in the Nordic countries in the twentieth century (Blossing et al., 2013:1).

In Nordic schools, literacy and general access to information sources were patchy but improved over time (Vincent, 2003). Compulsory schooling with an emphasis on literacy came much earlier in the Nordic region than in most other places in Europe. The way in which schools have been operated in Nordic societies created the conditions favourable for the overall societal development, although there are nuances to consider. Indeed, the success of Nordic societies can also be attributed to other factors, such as a strong institutional framework, a skilled workforce, a high degree of economic freedom, a sound democracy and low levels of corruption. The idea of gender equality has gained a secure foothold in the Nordic countries. Women's entry into the market economy became an important factor for explaining economic growth (Myhre, 2021). The differences between different parts of society are less stark than in other parts of the world, where social divides are sharper. Education has been a key for those children who did not want to follow in their parents' career footsteps, but also a key to prosperity. The school system therefore became central, partly because people with different social backgrounds entered the teaching profession on an equal footing, partly because the middle classes

supported education beyond elementary school, and partly because education enabled upward social mobility.

Compulsory education was further strengthened to meet the increased demands that economic and social development was expected to place on future workers and citizens (Telhaug et al., 2006). Women's access to education improved. Education became a vital social good, helping to build a foundation for welfare promotion and the economic and technological restructuring of society. Its quality had critical implications for society's long-term well-being. A future of a nation depends on the education of its children and young people. Society was and is changing, and education was and is needed to prepare young people for these changes. Nordic society was and is based on the principles that young people should be given opportunities to develop and that the school is an important arena for acquiring the knowledge and skills that are valued in society (Blossing et al., 2013). The school became a meeting place for all children and young people, regardless of their backgrounds, and was and is therefore an important arena of socialisation. Thus, the school was and is one of Nordic societies' most important institutions. It is nothing less than crucial for young people's ability to realise their wishes for the future. Thus, the school contributes to the common effort to create a good society.

The quality of students' education is undoubtedly linked to the quality of their teachers' education; there are both theoretical arguments and empirical support for the claim that a positive relationship exists between teachers with adequate education and the student opportunities to learn (Boyd et al., 2009; Darling-Hammond & Bransford, 2007; Gansle et al., 2012), although the evidence base for this claim remains controversial and even ambiguous (Mitchel & King, 2016) or based on lack of evidence (Goldhaber, 2019). It takes 45 to 50 years to replace the entire body of teachers; nevertheless, teacher education programmes provide new teachers to schools on a regular basis. Therefore, the quality of teacher education is important for the quality of the teaching that takes place in schools.

2.10 Summing Up

To understand today's school and teacher education and their challenges and opportunities in the Nordic region, it is necessary to adopt a historical perspective, but it is also important to consider the evolution of teacher education and thus student education in light of overall societal development.

Norwegians, Faroese, Danes, Swedes and Swedish-speaking Finns understand one another (Delsing & Åkesson, 2005). This is an important precursor, as is the idea of kinship peoples and its effect on social relations among the Nordic countries. The "pan-Scandinavianism" of the nineteenth century, the neo-Scaninavianism at the turn of the twentieth century and its significance for bottom-up processes also became antecedents of the more formalised co-operation between Nordic countries in recent decades.

We must, however, not ignore that nationalism was and is a force working in different directions. National identities were shaped early in the kingdoms of Sweden and Denmark and strengthened in the 1700s and 1800s in Norway, Iceland and Finland. The five current Nordic countries arose mainly due to the evolution of national identities. The contours of these national identities in Sweden and Denmark naturally go far back in time, but the period from 1789 until the end of the Napoleonic Wars is crucial for understanding the ideas of freedom and independence that arose in Norway and Iceland. Finnish nationalism gained a strong momentum in the last decades of the nineteenth century.

Strengthening schooling for most people means that more people had better conditions for adapting to the changing realities of working life. It took some time before the comprehensive school system (for which the Nordic countries are known) became dominant. But the seeds of the evolution of a real comprehensive school system were sown in the eighteenth century and became stronger in the mid-nineteenth century. In parallel with the evolution of the public funded and comprehensive school system with equal educational opportunities for all children, regardless of social background, location, talent and gender, teacher education was strengthened. In the beginning, there were no seminaries to train teachers, so the positions had to be filled by untrained people. However, the need for qualifications to perform teaching was recognised, at least to some extent. A number of institutionalized seminaries were established in the end of the eighteenth century and later. The structure and purpose of teacher education later became a part of the political debates of the nineteenth century, and teaching was increasingly carried out by seminary-trained teachers. The teachers organized themselves into interest groups, which strengthened their position in society. Over time of the extended comprehensive school model and the modern profession-oriented education teacher education arose. This is the topic of the next chapter.

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Chapter 3
The Evolution of the Extended Comprehensive School Model and the Modern Profession-Oriented Teacher Education After World War II

Eyvind Elstad

Abstract Despite the fact that the Nordic countries had very different experiences during World War II, cooperation intensified in the 1950s. The Nordic school model, with its emphasis on the child in focus, inclusion, equal opportunities for all, and an extended comprehensive and undifferentiated school system, emerged. The sorting of pupils into different tracks took place at age 15 or 16. The 1960s saw a significant expansion of the education systems, with the Swedish school model emerging as a paradigm for the other Nordic countries. With Finland's success in the first comparative education studies, Finnish teacher education became the standard for teacher education in Iceland and Norway. Sweden follows more complex models for teacher education, while Danish teacher education is an outlier from a Nordic comparison perspective. While Finnish teacher education has shown stability, frequent changes in models of teacher education in the other Nordic countries are typical. In public discourse, crises in teacher education are a recurring theme. These crises concern criticism of the quality of applicants, what student teachers learn, and insufficient graduate production. The problems facing teacher education are varied, but where they occur, they are dire; there are no simple solutions to the challenges that currently exist.

3.1 Introduction

The five Nordic countries – Norway, Sweden, Denmark, Iceland and Finland – have a long history of close ties. As independent states, the Nordic countries have educational systems with not only many clear similarities but also some differences (Eurydice, 2018; Nordic Council of Ministers, 2008). They rely today on a

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comprehensive and extended model of schooling that values equity, eschews streaming and permits easy passage between levels. Some of these educational systems have attributes of what has been called *the Nordic model of education*; that is, schools should be inclusive, comprehensive and extended (Imsen et al., 2017). The core tenets of Nordic education are the development of social justice, equity, equal opportunities, participatory democracy and inclusion, all of which align with the broader values of the Nordic welfare state and the development of the knowledge, skills and attitudes that prepare learners for a future as adult citizens and employers or employees. Contrasts between the Nordic countries and other countries and among education programmes, institutions and practices within the Nordic countries themselves are expected to be key focus areas of future research, with distinctions emerging in contrastive and comparative studies. The similarities may not only be partly due to parallel social developments and similar cultures but also because of the mutually inspired politics and social debates of these independent states; indeed, the Nordic countries often borrow ideas about policy development from one another (Hadzialic et al., 2017). Collaboration among Nordic institutions is also well established, such as the 'Teacher education in the Nordic region Conference'.

Two premises that shape educational policy in the Nordic countries are often cited:

- The comprehensive school system in the Nordic countries was extended and further developed from the 1950s through the 1970s. A 13-year experimental period was followed by a full-scale Swedish educational reform in 1962. This reform led to the extension of compulsory education to 9 years for all children aged 7 through 16. The reform later became significant as a model for equivalent extensions and renewals of compulsory education in the other Nordic countries. This reform reinforced the basis for what is currently called the extended, comprehensive, Nordic school-for-all model. Further, some educators sought new ways of teaching that permitted students to participate in classroom lessons and decide, based on their interests, what should be learned. However, these new ideas of teaching were embraced by a small fraction of teachers.
- Finland's success in large-scale international surveys in the 2000s has meant that policy shapers in other countries have been inspired by the structure of Finnish teacher education, which entails a 5-year, research-based master's course and was first implemented in 1979. Finland became a frontrunner towards a modern profession-oriented teacher education (often located at universities).

All the other Nordic countries except Denmark (including Greenland and the Faroe Islands) and some exceptional cases have subsequently introduced university-based teacher education for all new primary and secondary school teachers (though there are some nuances). Denmark is an outlier, with teacher education involving a 4-year professional bachelor's degree at university colleges. Sweden has a complex situation with partly a 4-year programme and partly 4½, 5, and 5½ year programmes.

We have also observed that Nordic countries have been inspired by one another in other policies that have significance for teacher education. In their different ways, both Norway and Denmark have streamlined the criteria for entry to teacher

education programmes, with the intention of making teacher education more attractive to applicants. The Nordic countries occasionally carry out evaluations of teacher education programmes; in several cases, these evaluations are reviewed and analysed by expert committees. An expertocracy of teacher education moves between committees in the Nordic region. The expert evaluations create a basis for comparison and an exchange of knowledge about the best ways for the five countries to handle emerging challenges. We also find examples of Nordic benchmarking, which is specifically intended to lead to improvements in how teacher education programmes actually operate. An earlier comparison of teacher education in the Nordic countries was intended to create a basis for an exchange of experiences and mutual inspiration and learning within these countries. This remains an ambition (Nordic Council of Ministers, 2008), but we should add that the trends in the countries' borrowings of policy design are far more complex than outlined above (Steiner-Khamsi, 2012). Among other things, we must note global trends and the transnational ideas and policy designs promoted by the OECD and other organisations, transnational agreements and similar pacts. For example, in the Bologna Process, 46 European countries reached agreement on a common structure and common mechanisms regarding shaping goals, quality control, weighting systems and similar criteria to ensure a basis for comparison and transferability. With its standardisation requirements, the Bologna Process – and the Bologna Declaration – was regarded as a little-discussed response to the challenges of the global competitive market economy. This standardisation should probably be interpreted as a desire for European policy development among broadly based groups that arose with the new millennium. The purpose of this chapter is to discuss the demise of the parallel school system and the evolution of the extended comprehensive school system (the Nordic school model) in the Nordic countries. It also explores how Finnish teacher education arrangements (both curriculum and structure) came to influence the discussions about quality teacher education in the other Nordic countries. Further, global trends and international student assessments have had an impact on how we perceive the quality of schooling. We also examine how the Nordic countries dealt with the issue of quality improvement, in which one seeks to move up in the international measurements that have in many ways set the terms for discussions of education.

The question of the significance of global trends is addressed in this collection of articles. These transnational trends work as driving forces towards greater convergence regarding the structure and the mechanisms of higher education, including teacher education. On the hand, teacher education ought to be adapted to the kind of school for which the aspiring teacher wants to qualify, which may (and likely will) involve different national characteristics. Thus, teacher education reforms are influenced by both global and national forces, creating instances of "vernacular globalisation" (Rizvi & Lingard, 2009), which describes the processes by which international and national educational systems coalesce to create distinctive versions of teacher education within different nation states (Menter, 2019). Thus, teacher education in each Nordic country can be carried out differently even though the basic structure is almost the same. Additionally, the educational systems in European countries generally have great differences, despite their attempts at

convergence (Grek, 2009). This collection of articles focuses on teacher education and educational systems within the Nordic countries. Chapter 3 dealt with the precursors of the Nordic educational model and the evolution of teacher education programmes in the Nordic countries. The development was followed until World War II. The main purpose of this chapter is to explain developments in the Nordic countries' teacher education in recent decades. The development of teacher education must be seen in connection with the development of the comprehensive school model. At various times, teacher education institutions took the leap to higher education. In Norway, a marked separation occurred in 1973 when the teacher training colleges became pedagogical colleges. In Sweden, the same thing happened in 1977. In Denmark, the development has been characterized by an unresolved discussion about the location of teacher education. Proposals to link it to universities have been launched several times. The current Danish solution is to call them university colleges.

Finland was the first Nordic country to determine the location of teacher education in universities as early as 1966. However, it took a few years before this became a reality. The 5-year Finnish teacher education programme, with its school-oriented research thesis, has received substantial attention and inspired policymaking in other Nordic countries (notably Norway and Iceland). Experts have described Finnish teacher education as "outstanding" and "excellent" (Darling-Hammond, 2017).

The other Nordic countries have also witnessed intensive activity in terms of change processes because teacher education has become a 'policy problem' in some settings. Sweden has a significant challenge in obtaining fully qualified teachers and implemented a new reform in 2023 with the ambition of creating a shorter supplementary pedagogical training programme to put more teachers in schools and to ensure that the requirements for teacher education are tightened and the focus is clarified (Chap. 4). The length of complementary pedagogical education is shortened, and the pace of study is intended to increase. In addition, the opportunities to work at a school and study teacher education in parallel are intended to be broadened.

In 2008, Iceland implemented a university-based 5-year master's in education for teachers, but in 2019 the authorities introduced an opportunity for student teachers to complete their teacher education without an independent research-oriented master's thesis (Chap. 8). In many ways, the lack of qualified teachers and low completion rates were behind changes in the length of teacher education. The pattern can be characterised as two steps forward and one step back.

Norway is – when this is written (2022) – in the process of implementing a 5-year master's programme for primary and lower secondary school teachers, but only time will tell whether the new arrangements will have an impact on whether students complete the programme (Chap. 6). The completion rates in the programmes are already quite low, and it is not known how the master's thesis requirement will affect that throughput. A former Norwegian government had a bold ambition that, by 2024, all teachers should have a subject-specific education to support their teaching. But this ambition has been annulled in 2022 by the current Norwegian government.

Teacher education in Greenland (Chap. 10) and the Faroe Islands (Chap. 9) also have their challenges, which are discussed in separate chapters. With the exception of Finland and the Faroe Islands, the Nordic region faces daunting challenges when it comes to teacher education. Those who are interested in teacher education have exciting times ahead of them.

3.2 The Comprehensive and Extended School System

The intention of the Nordic educational models is that learners from all social groups – irrespective of gender, geographical roots and social and ethnic backgrounds – should attend the same kind of school; that is, they receive compulsory, non-differentiated primary and secondary education (Imsen et al., 2017). Children should have equal opportunities by means of free education, stipends and loans and grants. Overall, the educational system should contribute to evening out opportunities. Some terms for this aim of obligatory primary and secondary education a comprehensive and extended school system, common schooling or schooling for all. The Nordic countries currently offer either 9 or 10 years of mandatory schooling, which in principle means free education for all youngsters. The school system is regulated by age, and there is a single track throughout each student's school career. Additionally, grading is introduced at a relatively late stage. The similarities in the educational systems of the Nordic countries are summed up in the term "Nordic educational model". This model's distinguishing feature is its lack of differentiation in terms of content and structure; learners follow the same curriculum and are not assigned to different tracks (which is known as "organisational differentiation") until they complete secondary school at 15 or 16 years of age. This is the background for a key attribute of the comprehensive school: the same curriculum and structure for all learners. Inclusiveness is also an ideal; the number of schools designed to take special and distinctive groups of learners has been greatly reduced, and the vast majority of learners are now integrated into what can be called normal schools. This philosophy is what lies behind the expression school for all: mandatory schooling that accommodates significant differences.

The Nordic comprehensive and extended school-for-all model features age-specific classes in which retention (being held back a year) scarcely exists (Imsen et al., 2017). By contrast, school systems in other countries, such as Luxembourg and France, feature learner retention to a far greater extent. Retention as a mechanism also contributes to greater homogeneity in certain respects in the various classes. The Nordic educational model can be likened to a conveyor belt system; learners between ages 6 or 7 and 16 are transferred from a given school year to the next, more or less independently of their performance. The Nordic model is strictly age-graded.

How different this Nordic educational model is can be best understood by comparing it with the educational models in other parts of Europe. For example, in the German school systems, learners can be divided into three different streams as early

as year 4 (year 6 in some places); in the streams, students work towards different final exams after years 9, 10 or 12. Another practice is placing German learners in classes according to their intellectual capacities, aiming for homogeneity or similar levels of performance or academic attainment in each class. The teaching arrangements delivered to German school learners is thus differentiated at a relatively early stage.

In a stark contrast, dividing learners into classes by academic level is forbidden in several Nordic countries (Imsen et al., 2017). The consequence is a greater heterogeneity of learner performance and learning expectations in logical-sequential subjects. This kind of mechanism – keeping classes together – can have a variety of effects. The inclusiveness of mixed classes means that academically weak learners may be inspired by or learn from communicating with academically stronger learners. Other scholars have pointed out that teachers thus need to aim their teaching at a medium level, meaning that both the strongest and weakest learners will experience inadequate teaching; which of these two effects is stronger is an empirical question. Legal regulations demand that educational be based on inclusion and adaptive teaching within integrated classes. Overall, this can create internal tensions between promoting achievement (i.e., the most performance-effective teaching) and following the requirements for inclusiveness. The situation in several Nordic countries is such that the comprehensive and extended school-for-all model is displaying cracks; both the Danish and the Swedish secondary school sectors view segregation as being implemented by means of private schools. This tendency is at odds with the concept of ensuring the same schooling for all learners. The numbers of private schools in Norway, Finland, Greenland, the Faroe Islands and Iceland are more modest.

Nine- or ten-year compulsory schooling was introduced in the Nordic countries in the 1960s and 1970s. The introduction of universal education of this approximate length in other countries was clearly inspired by the Swedish model. For a long time, Sweden maintained a parallel structure in its school system and was thus not a frontrunner of this endeavour. The parallel school system in Sweden was abolished and replaced with comprehensive, extended schools in 1949–1962 (Chap. 4). Regardless of the measures used – the number of learners and teachers, the number of degrees completed, educational institutions established or total costs to society – the twentieth century and especially the period after the World War II show an enormous quantitative expansion in schools. The working class had a talent reserve that it was important to recognize and nurture. Everyone should have the opportunity to take an education that their desires and abilities imply regardless of their social origin. This was largely realised during the 1960s, when many working-class children also entered universities and colleges. This development in the field of education helped bridge the gaps between social classes.

Sweden was neutral in World War II and thus avoided major damage to the country's infrastructure. The other Nordic countries had – after peace came in 1945 – enough resources to deal with war settlements and destruction. Sweden had opportunities to initiate large-scale experiments with an expanded school system. The well-written report that forms the basis for Sweden's expansion is an

impressive document that is worth reading even today. Although we can find similar bold ideas elsewhere, it was Sweden that began the development work on a significant scale. This clearly inspired the Norwegian authorities in the 1950s to initiate similar efforts to expand schooling; later, the other Nordic countries adopted analogous approaches and programmes. Finland and Denmark introduced 9-year schooling in 1972 (a voluntary tenth year was available), while Iceland established 10-year universal education in 1974. Norway introduced nine-year schooling for all in 1969, 10-year education in 1997, and a voluntary eleventh year in 2019. A key point is that increasing the number of years of a common education for all resulted from mutual influence, with the expansion of the Swedish model serving as an inspiration for the other Nordic countries. This is an excellent example of how the Nordic countries borrow one another's political ideas.

Teacher education has been a central focus for policymaking. In principle, teacher education should be appropriate to the school's social mandate and to the distinctive needs and characteristics of the individual country's educational system. Considering that the educational systems of European countries are so varied, it is no surprise that teacher education programmes in each country also differ. However, since the new millennium, transnational trends have become apparent (see Chaps. 13 and 14), creating certain forms of convergence in the structure and emphasis on research in teacher education programmes of most European countries. The previously noted Bologna Process is one example; another is the spread of ideas about policy formation, which are often connected to the notion of neo-liberal management tendencies in national educational systems (Ball, 2012). Without diminishing the importance of these developments for school systems across the continent, this book is concerned with teacher education and its development in the Nordic region and limited to recent decades.

At its core, teacher education is intended to prepare candidates for future teaching careers. The pool of teachers in any country is renewed over time as generations of teachers leave the profession and new ones arrive. As such, changes in teacher education will affect schools over a certain period of time.

The extension of compulsory schooling to 9 or 10 years in an undifferentiated educational system had consequences for how the varieties of teacher education developed in the Nordic region. Teacher education programmes for the school-for-all system were established and encompassed the entire scope of the comprehensive school's age range. Until 2010, the general teacher education programme in Norway qualified teachers to teach all subjects in all age ranges. In Denmark as well, teacher education qualified teachers for the entire learner range until 1997 (Rasmussen, 2008). With the passage of time, this system has evolved to make qualifications relate to level and academic specialisation. In Sweden, developments between 1978 and the turn of the millennium headed in the opposite direction; Swedish teacher education was originally divided into three levels. In 1988, this was changed to two levels, before being replaced in 2001 with a single programme that was divided into two specialisations. This reform removed all differences among types of school; student teachers pursuing academic studies in math up to the master's level could do their teaching practice in a preschool. However, a new system introduced in 2011

differentiates between a lower-school qualification and an academic teacher qualification (for grades 7–9 and the upper secondary). Additionally, there is a preschool teacher course and one for working in after-school initiatives. In Finland, the teacher education still qualifies teachers in all subjects up to year 6. The Icelandic primary school teacher education resembles the Finnish model by focusing on broad skills, but a shortage of teachers there has led to student teachers taking a final year in a supervised and partly paid school practice ('master of teaching'). This can be seen as two steps forward and one step back. In separate Chaps. (4–11), this book discusses the processes of change in the teacher education schemes of each Nordic country.

Whereas Finnish teacher education has gained international recognition for its high quality, the teacher education programmes in the other Nordic countries and areas have been criticised, sometimes heavily so. Continuing concerns have been expressed about the quality of teachers and their teaching and the commitments to both excellence and equity in education. These concerns have been articulated by politicians, practitioners and researchers in almost every context. Some prognoses indicate inadequate coverage of future teacher needs in Norway, Sweden, Greenland and Iceland. Denmark anticipates inadequate coverage through 2023, although a sufficient supply of teachers is forecasted for later in the 2020s. The current and future supply of teachers can also partly be viewed in the context of many teachers leaving the profession, thus creating the need for extraordinary recruitment measures, such as appointing individuals who lack adequate formal teacher education. The reasons can be complex and can partly reflect demographic effects and partly the varying attractiveness of the teaching profession for those who complete higher education. In general, the teacher shortage is related to the low appeal of teacher education as a course of study. Norway and Denmark have attempted to implement policies that raise the intake requirements for entry into teacher education programmes. Similar policies were considered by the Swedish educational authorities in 2013 but will probably soon be put into practice. In Iceland and other Scandinavian countries, there is also a significant dropout rate during teacher education. The teacher education institutions' programmes have been the subject of critical attention for their lack of relevance to the exercise of teachers' professional duties. In short, teacher education programmes in Norway, Sweden, Denmark and Iceland are in crisis.

3.3 The Economic Evolution of Modern Nordic Societies

Modern Nordic societies, which in the second half of the nineteenth century had begun to grow out of primary businesses such as agriculture, forestry and fishing, and which with the industrial rise in the post-war years industry became the dominant type. The period from 1950 to 1970 was the golden age of industrial societies in several regions as well as Nordic cooperation. It was during this period that industry replaced agriculture as the business that employed the most. Consistently

high economic growth and the redistribution of this through centralized wage settlements, progressive taxation and the welfare state's benefits also created great optimism for the future: almost everyone should participate in the working life.

Since about 1970, globalization has put the country-territorial framework of the Nordic nations under pressure. Post-industrial service and knowledge professions have replaced industry as the most important sector in terms of employment and value creation. A major shift in the business landscape took place. Migration and significant share of young people investing in higher education has led to a brain business surge. Most of the Nordic countries are in the top echelon of National Ranking of Brain Business Jobs (Sanandaji, 2021). Vocational differentiation and the emergence of a post-industrial middle class have made the old conflicts between social groups less clear and important. Around 1970, a new type of society has gradually grown out of the modernity of industrial society. Steady growth of knowledge-intensive jobs arose. The Nordic countries are mainly in good positions when it comes to the proportion of knowledge-intensive jobs. In the first phase, from 1945 to around 1970, the countries were to be built up and integrated after years of social tensions and German occupation (except Sweden, Iceland and Greenland; Finland has a complex World War II history). The goal was an efficient, well-organized and socially just modern industrial society. The means was a welfare state built on comprehensive and universal benefits. During this period, the individual had to bow to the community: equality and solidarity became the central values. It was about standing up for each other, lifting together, and then distributing the benefits reasonably evenly. The industrial society's modernity founded on equality and solidarity is left. A step into a new type of modernity where freedom has strengthened its position is taken (Aakvaag et al., 2012).

Free education at the primary, secondary and tertiary levels lays the foundation for an emphasis on the knowledge-based economy in the North, parts of which enjoy world-leading levels of investment in research that supports enterprises, services and the development of a modern, high-tech society. Employment levels are generally high in the Nordic region, with women and older people in particular making a positive contribution. The gender wage gap is also generally low compared to other countries.

A joint Nordic labour market established in 1954 and job opportunities have been the key reasons why northerners have moved or commuted across national borders. However, wage differences have also contributed to inter-Nordic migration. The first major relocation movement was from Finland to Sweden. Today, Norway is the largest recipient country of Nordic migrants. A European labour market has emerged, leading to a significant influx of Eastern European labour to the North following EU enlargement in 2004. Seasonal work in agriculture, fisheries and services has become completely dependent on foreign labour. This has been made possible through the establishment of a common European labour market. Immigration through asylum schemes and family reunification also contribute to the labour influx. How will the Nordic model be influenced by the increasingly extensive international migration from cultures that are very different from Nordic cultures?

Why is there a high proportion of foreign labour in the Nordic countries? The answer to this question depends on which Nordic country is involved. As relatively rich countries, they all attract labour from other countries. Immigration of highly skilled labour has always been important for economic development in the North, from the Hanseatic era through the early mining enterprises to industrialisation and the purchase and maintenance of machinery.

Parts of the Nordic region have very high wages, and the small gender wage gaps in Nordic countries help attract foreign labour. At the same time, there is a declining participation rate among some Nordic citizens, and there is a growing group of, for instance, young people who are in neither work nor education. Not everyone is able to handle the pressure of productivity, which means that some gravitate towards schemes in which you live and finance your life over a very low flame.

Overall, citizens in the Nordic countries have done better in material terms. The Nordic route to prosperity preceded the evolution of many welfare arrangements. A hundred years ago, Sweden was the political and economic big brother in the North. However, that situation has changed over time. Per capita gross domestic product figures from 2021 show Norway now on top in the Nordic region, followed by Iceland, Denmark, Sweden and Finland, in that order.

For Norway, petroleum extraction plays a significant role, as does the fact that part of the gains from petroleum extraction are used to bolster and diversify the Norwegian economy. Both phenomena lead to the increased use of foreign labour. But in addition to exports of crude oil and natural gas, exports of fish, aluminum and electricity also play a significant role in the Norwegian economy. The petroleum sector has helped raise wages to obtain sufficient suitable labour. This mechanism spreads to the labour market in both the sheltered sector and other competitive sectors and has helped push up wages across the board. If companies can pay foreign workers a little bit less, a labour influx from abroad will soon occur. Over time, this means that the non-petroleum sector exposed to competition will shrink, while the sheltered sector remains the same or increases in size. Many manual occupations are gradually being automated as the cost of human labour increases. Importing cheap labour from abroad has become a way for competitive businesses to adapt to economic conditions. Thus, income from nature (known as “natural capital”) is traded through the use of foreign labour, and the wealth from natural capital is to some extent provided by foreigners.

Denmark is also a petroleum nation but it has extensive industrial and agricultural production, along with a service sector. Until World War II, agriculture had the greatest impact on the Danish economy. Later, agriculture declined, and Denmark’s economy is now largely based on services, industry and financial activities. Denmark has a mixed economy with a large degree of free trade, and its standard of living is above the European average. Denmark also has the world’s highest tax levels.

Unlike Norway and Denmark, Sweden does not have petroleum resources. The northern part of Sweden is covered by forests, while the central part is the country’s industrial core. The southern part has extensive agricultural production. Supported by peace and neutrality throughout the twentieth century, Sweden has achieved a very high standard of living but has nevertheless enjoyed somewhat weaker

development than, for example, Norway. The Swedish route to prosperity was built by a mix of capitalism and an extensive public sector that supplies welfare benefits funded by high taxes. Industry in Sweden increased until the mid-1970s, when the service sector took the lead.

The Faroe Islands' economy is dominated by fishing, including fish farming, which accounts for around 95% of its export revenues and half of its GDP. Greenland imports almost all consumer goods, while its exports consist almost exclusively of fish and cold-water shrimp. Modern Greenlandic society is heavily influenced by a large public sector, and private business exists only on a small scale. Hunting, Greenland's traditional means of livelihood, has lost importance.

Fishing and fish products also dominate Iceland's economy, but Iceland has developed its service sector (tourism and finance) and industrial sector (information and communications technology, biotechnology) to a greater extent. The fisheries in the Åland Islands have declined over time, but they still have a thriving economy, which is closely linked to tourism and shipping.

Economic growth is positively related to school levels, school attainment and other quality-related aspects of education in the Nordic countries (Gylfason, 2001; Herbertsson, 2003). Human capital has been cited as a determinant of economic growth (Vandenbussche et al., 2006). Other factors of importance for national competitiveness are institutional quality, infrastructure, ICT maturity, macroeconomic stability, health, human capital, product markets, labour markets, the financial system, market size, business dynamics and innovation capacity. Although per capita economic growth was high decades ago, from 2017 to 2019, per capita economic growth among Nordic countries was in the low echelon of OECD countries (Eklund & Thulin, 2020). What does this mean for the future? Officially, Nordic co-operation is striving for sustainable development, gender equality, and a children's rights and youth perspective in its visions of the future. What will the underlying economic realities mean for how much of that can be realised? What role does the education sector play in this issue? This type of question is fundamentally about political controversies and priorities.

3.4 The Evolution of the Nordic Welfare State

The Nordic model involves a public sector that provides citizens with welfare services and a social safety net. However, the term 'Nordic model' is as elusive to define succinctly as it is common to read and hear. Andersen et al. (2007) see the principal features of the Nordic model as the following:

- a comprehensive welfare state with an emphasis on payments to households and publicly provided social services financed by notably high taxes
- a great deal of public and/or private investment in almost free education at the primary, secondary and tertiary levels, along with subsidised childcare

- a set of labour market institutions that includes strong labour unions and employer associations, significant elements of wage coordination, relatively generous unemployment benefits and a prominent role for active labour market policies.

Others associate the Nordic model with the introduction of market reforms and flexibility in the public sector (Greve et al., 2016). The term 'the Nordic model' has also been used to refer to the Nordic states themselves, with their comprehensive welfare arrangements and high taxes to fund them (Greve, 2007). In addition, the term is used in a limited sense to refer to consensual decision-making in politics (Jónsson, 2014) and centralised arrangements for resolving conflict in the labour market (Brandal et al., 2013). The Nordic countries have long had a tradition that gives employees significant influence in centralised bargaining regarding collective agreements on salaries and working hours (Byrkjeflot, 2001). The term 'Nordic bargaining model' (which is protected as a brand by The United States Court of Patent Appeals) refers to inter-party collaboration between employer and employee organisations (and the state in some instances), which is based on influence, joint decision-making and mutual respect (Brandal et al., 2013). Inter-party collaboration is intended to reduce the negative effects of inherent conflicts of interest, which in some instances can disrupt processes (Barth & Moene, 2016). Negotiations often take place in connection with collective and centralised tariff agreements and through agreements on working conditions. In addition to a centralised agreement on salaries and working conditions, local negotiated settlements allow for salary increments where necessary to satisfy the recruitment needs of individual companies (Barth & Moene, 2016). This basic model for finding solutions to conflicts has garnered both interest and admiration, given that the influence of Scandinavian trade unions has contributed to a relatively low level of workplace conflict and to a comparatively high standard of living among industrial workers.

The account of the economic development in the Nordic countries in this chapter is not uncontroversial. Disagreements about what explains and maintains economic progress persist. Some emphasise that education is not highly valued in the Nordic countries (Eklund, 2018); the social order tends to incentivise over-education or education in the wrong programmes. Further, the way negotiations on wages and working hours often take place through collective agreements could lead to quite unfavourable results (Acemoglu et al., 2012). Sanandaji (2016) claims in *Debunking Utopia* that the Nordic societies succeed *despite* the welfare state and not because of it. He refers to statistics that show that Danish Americans have a 55% higher standard of living than Danes in Denmark, while Swedish Americans have a 53% higher standard of living than Swedes in Sweden (2013 figures). In other words, it can be argued that the way Nordic societies are organised can actually be limiting.

Other economists have a completely different concept of how the framework for negotiations between the social partners can best be designed. A generous welfare state contributes to wage compression, which in turn increases the need for a generous welfare state. The two mechanisms support each other and give rise to an equality multiplier (Barth & Moene, 2016). Several Nordic countries have reached situations in which it was difficult to expand the welfare arrangements any further.

As a remedy, decentralisation of decision power and political devolution from the state to the municipalities took place in the 1990s. One example is schooling, as the municipalities became employers of the school staff. Sweden is the most extreme example of the decentralisation of decision power and the introduction of quasi-market arrangements in schooling (with something that looks like a voucher system). Large private school enterprises arose. Denmark has also a tradition of private schools, but still has few private groups that run schools. In the other Nordic countries, the volume of private schools is more modest.

3.5 The Nordic Gold: Trust

Education is a vital social good. It lays the foundation for welfare promotion and the economic and technological restructuring of society. Its quality has critical implications for society's long-term well-being (Putnam, 2015). Some scholars argue that a common Nordic school model exists because Nordic countries rely on a comprehensive and extended model that values equity, no streaming, and easy passage between levels (Imsen et al., 2017). The tenets of Nordic education are the development of social justice, equity, equal opportunities, participative democracy and inclusion, which align with the values of the Nordic welfare state and the development of the knowledge, skills and attitudes that prepare learners for a future as adult citizens and employers or employees. While clear similarities exist between Nordic educational systems, there are also significant differences. Contrasts between the Nordic countries and other countries and among education programmes, institutions and practices within the Nordic countries themselves are expected to be key focus areas of future research, with the distinctive characteristics emerging in contrastive and comparative studies.

Although the Nordic region has become less homogeneous, it remains meaningful to refer to a common Nordic societal model. The Nordic countries have strong collective societies that are characterised by high levels of social trust.[1] They demonstrate the highest confidence and interpersonal trust worldwide (Holmberg & Rothstein, 2016), which builds social capital and distinguishes them from the rest of the world. People with a high degree of social trust are more likely to perceive that they have greater control over their lives and do better in life (Fukuyama, 1995). Trust and confidence also promote engagement with society. These highly valued levels of social trust are as good as gold in Nordic society (Andreasson, 2017).

[1] The Nordic countries top international rankings in terms of the degree of social trust among citizens; more than 60% of Nordic residents surveyed indicate that they can generally rely on other people (Holmberg & Rothstein, 2016). Several studies (Charron & Rothstein, 2016; Sønderskov & Dinesen, 2014) have reported large differences in interpersonal trust across countries. Their respective percentages are just under 40% in the United States, less than 30% in the Mediterranean countries and even lower levels in many countries in Eastern Europe and the Balkans. Levels of trust are approximately 10% in authoritarian countries like Zimbabwe, Iran and Colombia.

However, this phenomenon has developed over time and is the result of several collaborative but complex social processes. The question is whether the high degree of trust facilitates the conditions for the economic development that has taken place in the North? And how does the school facilitate that children and adolescents have a relationship of trust with society? Nordic schools' functioning builds and sustains social trust and confidence. Close interactions exist between learners' upbringing at home and their education in schools and society (Putnam, 2015).

The World Happiness Report is a landmark survey of the state of global happiness that ranks 156 countries by how happy their citizens perceive themselves to be. The 2019 report uses data obtained from the Gallup World Poll. The rankings are based on answers to the main life evaluation question asked in the poll, and the variables used reflect what has been broadly found in the research literature to be important in explaining national-level differences in life evaluations. The Nordic countries show extremely high values for the following key variables that have been found to support well-being: income, healthy life expectancy, social support, freedom, trust and generosity. The ranking of happiness by country shows that four of the five Nordic countries top the global happiness ranking in the 2016–2018, with Sweden still a very respectable seventh place:

The annual data for Finland have continued their modest but steady upward trend since 2014, so that dropping 2015 and adding 2018 boosts the average score, thereby putting Finland significantly ahead of other countries in the top ten. Denmark and Norway have also increased their average scores, but Denmark by more than Norway, so Denmark is now in second place and Norway third. There are no 2018 survey results available for Iceland, and their score and ranking remain the same, in fourth place (Helliwell et al., 2021, pp. 26, 30).

Since 2003, the Global Corruption Barometer has surveyed the experiences of everyday people confronting corruption around the world. The corruption perceptions index shows that the Nordic countries are among the countries with least corruption (Transparency International, 2021). All Nordic countries are in the top echelon of the The Democracy Index (The Economist Intelligence Unit Limited, 2021). Thus index is based on 60 indicators grouped in five different categories, measuring pluralism, civil liberties and political culture. The Intergenerational Solidarity Index (made up of ten indicators of environmental, social and economic solidarity) shows how much different nations provide for the wellbeing of future generations (Krznaric, 2020). The Nordic countries are in the top echelon (except Norway). The World Economic Forum introduced the Global Gender Gap Index as a framework for capturing the magnitude of gender-based disparities and tracking their evolution. The index benchmarks national gender gaps in economic, political, education and health criteria and provides country rankings that allow effective comparisons across regions and income groups. No country in the world has achieved gender equality. The highest ranked countries – Iceland, Norway, Finland and Sweden – have closed over 80% of their gender gaps, while Denmark is number 14 on the list (World Economic Forum, 2019).

Education has played a particularly important role in recent decades. Schools' functioning – in alignment with that of voluntary organisations and society's formal

institutions – sustains democratic beliefs and establishes the foundation of democratic citizenship (Putnam, 2015). Regarding the state's role (Holmberg & Rothstein, 2016), research has focused on perceived justice in societal institutions, for instance, along with schools' functioning. Moreover, a general welfare state arrangement counteracts the creation of subclasses (Valkonen & Vihriälä, 2014). The state's efforts to raise the population's educational level have had a positive impact in this context. Therefore, the cement in Nordic societies consists of social trust among citizens (Rothstein, 2003), relational trust in schools and trust in society's institutions, including its political and legal systems. A critical spotlight has also been shone on teacher education institutions' programmes for their limited relevance to the exercise of teachers' vocational tasks (e.g., Danish Agency for Science and Higher Education, 2018; Lid, 2013; NOKUT, 2006). The criticism is justified, though to varying degrees. The content of teacher education has also been questioned. It is a matter of debate whether any of these criticisms affects the position of progressive pedagogy in the Scandinavian countries. This issue applies in particular to public governance documents for the education sector and to ideas communicated in teacher education environments. Questions have been raised about the limited relevance, in terms of real-world experience, of the theoretical basis for the practical training elements of teacher education (Henrekson et al., 2017; Lid, 2013). The question is whether this point is related to what is referred to in the next section as the Scandinavian version of progressive pedagogy and attempting to answer is a complex task, for many reasons. Here are two explanations that can help fill in the picture. Dahlløf (1984) describes a feature of the expansion of the comprehensive school, specifically the postponement of selection by the school system. This also means that ongoing control and examination schemes become less overbearing, with the consequence that knowledge profiles and knowledge requirements are less marked. Furthermore, pressure from youth cultures and less pressure from national and international cultures linked to the higher echelons of the society represent cultural forces outside the school.

3.6 The Scandinavian Version of Progressive Pedagogy

A fraction of Scandinavian educators embraced ideas of learner-centered teaching in the mid of the twentieth century. These educators tried to incorporate learners' aptitudes and interests into the curriculum. These ideas challenged the dominant practices of teacher-centered teaching. These new ideas manifested themselves unevenly in the Nordic region. This is an example. After World War II and in connection with the Swedish reforms in schools and teacher education, a kind of state-imposed progressivism emerged (Carlgren, 2018); progressive pedagogical methods were prescribed in curricula and other control signals. This idea flow can be linked to the general concept of progressive pedagogy, but there has been discussion about a peculiarly Scandinavian progressive pedagogy that has changed with the spread of the mass education system, as we in Europe received it after the education explosion

from around 1960 onwards. In other words, it speaks of a different progressivism than the more child-centred reform education that was promoted between the world wars. Reform pedagogy meant a friendlier form of interaction between teacher and students, as well as less oppressive discipline in school. Another important ambition was to make the school's curriculum more meaningful and applicable.

In the Scandinavian teacher education environment, this progressive view spread with great rapidity, especially in the 1970s: "In teacher education, pedagogical ideals were conveyed which were often quite far from the educational reality in schools" (Carlgren, 2018). The educational ideals were particularly related to project work, problem-based learning and investigative working methods in the classroom (often known as inquiry learning and discovery learning). A similar fascination with progressive pedagogy could also be found in Norwegian teacher (Haug, 2009; Rovde, 2004) and Danish education environments (de Coninck-Smith et al., 2015). The Scandinavian version of progressive pedagogy became a decisive, idealised model that remained opposed to traditional pedagogy, which was influential in ordinary schools (Telhaug et al., 2006, p. 254).

As noted above, progressive ideals were highlighted in the policy designs for the schools and teacher education in the 1970s. An example of the latter concerns the Swedish teacher education system (Larson, 2011); the 1974 reform emphasised that the teacher's role should be shifted from knowledge dissemination to stimulating the students' personality development (see SOU report, 1978, p. 86). Furthermore, according to a widespread view, knowledge is not something that the teacher conveys to students but something the students themselves construct (Kornhall, 2013). Instead, the teacher should facilitate and guide the students' active, self-regulated learning processes. The facilitation of learning would become more individualised, among other things, through the requirement for adjusted education. Students should work independently and be considered creative and knowledgeable individuals who can "research" and discover phenomena (Bruner, 1961), either by themselves or with other students. In this way, students should progress towards the knowledge goals that the teacher has deduced from the national curricula through prepared work plans for learners. The teacher's role becomes more like a facilitator, a guide or a tutor: someone who enables students to have adequate tools and learning resources to use in a learning community. Thematisation across established school subjects was emphasised as important. The opposite of this ideal type of learning community was a negatively drawn image of the traditional classroom in which knowledge dissemination, teachers doing teaching, drills and exercises were central.

Reform or progressive pedagogy has a complex prehistory in Scandinavian countries, as it does in other parts of the world (Dewey, 1928; Labaree, 2005; Lundgren, 2002; Reese, 2001). At the end of the 1990s, a continuation of the Scandinavian progressive pedagogy from the 1970s was used as the basis for curriculum development, and the view that had been embedded in this direction was once again to make its mark on discussions, such as those about schools and society. To varying degrees, project work and theme-based group work, individualisation of learning activities and cross-disciplinary ambitions for the schools' activities were

presented as exemplary of school practice, the meaning of which was therefore expected to be understood by the teachers. There are different nuances in the basic views that were promoted in the 1990s, but one variant can be explained as follows: knowledge is created in a social context, and it is important that learners discover knowledge for themselves, often together with others. Thus, the teacher must exercise caution in conveying knowledge but should facilitate learners' access to sufficient learning resources and efforts to take responsibility for their own learning processes. Together with others, the students use learning resources and form a practice community where issues are discussed and resolved; it is the students who undertake examinations and thus discover what is important to learn. This teaching and learning approach has implications for normative ideas about the exercise of the teacher's role and the attractiveness of the teaching profession; the teacher must facilitate the students' self-regulated learning. The legitimacy of making demands of and having expectations directed at students was weakened, and the students' own work processes would be essential.

The national governance of schools in the Scandinavian countries in the 1990s placed great emphasis on those student work processes. What follows is an example from a Norwegian school. Over the 1997–1999 period, a regulation stipulated that project work would be compulsory in schools: 60% of classroom time at the primary level, 30% in intermediate classes of 11- and 12-year-olds and 20% at the lower secondary level had to be used for projects. This ideologically dedicated provision was not supported by research (e.g., Kirschner et al., 2006; Klahr & Nigam, 2004; Mayer, 2004). A nationwide regulation issued in 1999 stated that some of the curricular content could be replaced or selected and that the percentages for project work should only be used as guidance (Telhaug & Mediås, 2003). Nevertheless, the idea of project work remained popular in the highest echelon of the then Ministry of Education and Research at the turn of the millennium. Ole Briseid, then head of the ministry's Curriculum Department, was interviewed for an Aftenposten article published on July 5, 2001 (about 6 months before the first PISA report was published) said the following:

> The Ministry has wanted to reform the teaching methods in schools (in Norway) for a long time. Now this is finally happening. The Ministry has wanted this for a long time. He (Briseid) wants more project work, less traditional teaching using the blackboard as a visual aid and more problem-based teaching. To a larger extent, learners will work independently and in groups with topics they develop themselves. The teachers will be more like supervisors than lecturers, and computer technology forces the development of new teaching methods (Kluge, 2001, p. 3).

A leading politician also said, "the teacher is mainly a tutor instead of being a teacher/lecturer" (then Norwegian Minister of Education Trond Giske, as cited in Skagen, 2014). What impact such signals had on the actual educational activities in schools remains an unresolved empirical question, but the normative premises in the Norwegian politics of the 1990s are indisputable.

A similar development took place in Swedish education (SOU, 1999, p. 63). The Swedish Curriculum Committee envisioned that the learner's role in school would be to investigate phenomena and discover what to learn. The teacher's role would be

to stimulate, support and guide students (Linderoth, 2016, p. 50). The emphasis on these forms of student activity had implications for the exercise of the teacher's role; the teacher should facilitate the student's active exploration by making tools and resources available and by mentoring and guiding the student's journey of discovery. Ylva Johansson, the Social Democrat School Minister of the day, said the following: "The teachers will never get back their old status, the one that was associated with the old school. It was an authority that rested on a role given by the authorities – the school had the knowledge monopoly. Today, one must in another way deserve its legitimacy" (Svenska Dagbladet, August 17th in 1997). A changed teacher role was emphasised by the education authorities. The extent to which the control signals affected practice in Swedish schools.

This way of assessing teachers' work also had implications for the view of knowledge. The Swedish National Agency for Education wrote the following (in connection with the introduction of new curricula in Sweden, Curriculum guidelines from 1994):

> Knowledge [is not intended] … to [be] convey[ed] or transfer[red] from one individual to another, from the one who teaches to the one who [is taught]. […] The teacher's role must change, […] and instead of creating knowledge, the teacher should "guide" the student in his / her learning. The teacher's teaching role was thus toned down to support and supervise, while the responsibility for the learners' knowledge development was to a much greater extent placed on the student himself.

The topic discussed above is referred to in this chapter as the *Scandinavian version of progressive pedagogy*. This view had a strong position in teacher education environments and among top bureaucrats in the Scandinavian countries. However, over time, the hegemony of progressive pedagogy was weakened in both management intentions and pedagogical practice (Imsen & Ramberg, 2014; Østerud, 2016).

The results of large-scale international studies provided legitimacy for changing the policies underlying progressive education. Target management with results control has entered the education sector in a stronger way than previously known. It is crucial that future research study this transformation in detail. After the turn of the millennium, both words and meanings have been changed in public educational documents. The knowledge discourse embedded in large-scale international surveys has been more accepted as important in the political debate across almost the entire political landscape (Elstad, 2012). The previous recommendation of a facilitating role for teachers has been replaced by formulations on more active executive roles (expressions such as "put pressure on learners" have been used in Norwegian educational policy documents).

In the Swedish debate, the public discussion has become unnecessarily polarised through the use of expressions like "woollen pedagogy" and "pulpit teaching" as two dramatic traits. The resistance to the importance of large-scale international studies and the implications for schools and teacher roles has – with some exceptions – disappeared from the debate in newspapers and other media and from the textbooks used in teacher education. More research is needed to determine whether the content of campus teaching in teacher education programmes provides a good starting point for entering the field as a newly qualified teacher. We are on safer

ground arguing that the premises embedded in large-scale international studies have had enormous importance for and impact on the public debate surrounding what constitutes an ideal education. Therefore, it is reasonable to more closely examine the importance of large-scale international studies.

3.7 Reforms in Nordic Countries' Teacher Education Systems

In most national systems, teacher education is a complex programme partly because pedagogic training occurs in two distinct arenas: (1) on-campus teaching at an institution of some kind and (2) training in the practice school. A vital challenge that has plagued some teacher education programmes over time is a lack of integration between campus-based education and school-based practice. There might be some challenges in teacher education in terms of coherence and the integration of theory and practice. However, this criticism has been directed with varying intensities and for different reasons. Further, it is a central premise that there should be coherence and connectedness between the theoretical and practical elements in teacher education in all Nordic countries. However, the institutional arrangements and content may vary among teacher education institutions in Nordic countries. One of the challenges for school-based supervisors is to relate the content of their supervision to the basis of knowledge that is created in the campus-based portion of teacher education. As for the teacher education institution, information material is prepared regarding the campus-based content of teacher education and guidelines regarding the conduct of supervision at the school. In addition, meetings are arranged between teacher educators and practice supervisors to establish points of contact and mutual information. However, these forms of organised contact are often not fully integrated or comprehensive. On the other hand, attempts have been made to strengthen the contact between the teacher-education institutions and schools by establishing institutional arrangements for partnerships: some schools have been specially designated as training schools that operate in close partnership with teacher education institutions. There have also been attempts to establish a closer collaboration, which is binding for schools if they are to describe themselves as "university schools" (a term to which a certain prestige is attached). There are few resources available for carrying out systematic contact between educationalists and practice supervisors.

As noted above, the Nordic countries' teacher education systems have undergone several reforms and minor adjustments in recent decades, in terms of both structure and content. This endeavour is a never-ending story: reforms have contributed to renewals and changes, but some problems have not been solved, as we have seen above. At the same time, teacher education is characterised by contradictory expectations in the public debate. The following are some of the many examples available. First, on one hand, the teacher education reforms in recent years have led to a sharpened academic emphasis, which implies academic specialisation in a few

subjects. Thus, there is an emphasis on professional depth instead of breadth. On the other hand, many schools in sparsely populated areas in the Nordic countries need teachers with broad competence to meet each school's need to provide education throughout the comprehensive school's portfolio. In some cases, it will be impractical and may not be possible to produce a roster of teachers with specialisations in all the subjects where this is required. Thus, a trade-off relationship arises between considerations of academic specialisation and the need to maintain schools in sparsely populated areas. Competence requirements could lead to a situation in which small schools must be closed down, with their former students transported daily over longer distances or sent to boarding schools. This phenomenon has already been witnessed in Iceland.

The second example is the tension between increasing admission requirements for teacher education and the need to produce a sufficient number of educated teachers. On one hand, tightening up admission requirements will discourage less suitable applicants. On the other hand, more stringent criteria for entry could mean that more highly qualified applicants would find teacher education more attractive than previously. Which of these mechanisms is stronger is a question that can only be answered empirically. In cases where the numbers of both applicants and fully trained graduates have decreased, there will be a trade-off between two contradictory considerations.

The third example is a long-term trend showing the Nordic educational authorities' emphasis on teacher education programmes based on research and that teacher educators should be active researchers. However, politicians stress that the content of teacher education should also ensure practical relevance. This is a difficult trade-off (see, e.g., the Danish Agency for Science and Higher Education, 2018, p. 48). Some educators have discussed placing greater emphasis on the importance of field experiences in teacher education (Zeichner, 2017). For example, starting in 2021, the Swedish government will again "reform teacher education: the requirements for education must be tightened. Admission requirements must be raised. More teacher-led hours should be introduced, and the connection between theory and practice should be strengthened. The focus on teaching methodology should increase" (January Agreement, 2019). Former Swedish Minister of Education Jan Björklund argued for the introduction of "a mandatory block of teaching methodology. Teaching methodology should be the subject connection, and educators of this teaching methodology should be experienced teachers from the school system. Teaching methodology has not been considered to be academic and has therefore been squeezed out of teacher education" (Björklund & Fahlén, 2018). This statement reveals an endemic tension between the research and practical orientations of emphasising teaching methods in the teacher education curriculum. In other words, teacher education institutions must navigate a field of tension between considerations that are well justified but can be onerous. This problem is acknowledged in teacher education in the Nordic region environments, where there have been attempts to find solutions through, among other means, partnership agreements between teacher education institutions and practice schools.

3.8 Importance of School Reforms for Learners' Performance Levels

Gustafsson and Blömeke (2018) have analysed the results published in large-scale international surveys from 1964 to 2012 that measured reading literacy and numeracy to identify trend lines in Nordic countries' school performance (Iceland was not included in the surveys). First, their study shows that the increase in the number of years of compulsory schooling in the 1960s and the 1970s was followed by improvements in literacy and numeracy performance among the general population. An example can help illustrate this finding. Finland's oldest age group in the survey (the cohort that attended the 7-year school before the school expansion in the 1970s) had weak reading skills and poor numerical understanding. However, among those who finished Finnish comprehensive and extended school in the mid-1970s and later, performance in literacy and numeracy was significantly improved. This achievement applies particularly to the group that completed Finnish school in the mid-1990s, which appears to represent a clear performance peak in the Nordic comparison. It is difficult to prove causal relationships in educational studies that are based on time-series data, but Gustafsson and Blömeke (2018) set the trajectory for reading literacy in connection with both the expansion of Finnish school to 9 years and the improved teacher education that was implemented in 1970 and the years that followed.

Citing Kivirauma and Ruoho (2007), Gustafsson and Blömeke (2018) also note a distinctly focused support for almost 20% of the students with special needs in the first to third grades. The extent of the use of special education then dropped to about 8% of learners in the ninth grade. Much of this teaching was devoted to writing. The combination of extended schooling and focused support education may help explain the improvement in Finnish performance; both educational reforms and teacher education reforms in Finland worked in favourable ways to increase performance in literacy and numeracy, with a peak in the mid-1990s. The Finnish results were clearly higher than the Norwegian, Swedish and Danish results at the same time (Gustafsson & Blömeke, 2018). However, all the Nordic countries (again, Iceland was not surveyed) experienced a negative trend from the mid-1990s through 2012. Since then, the trajectories have been more mixed. Sweden had a relatively high level of performance in reading literacy among those who completed compulsory elementary school in the late 1960s and early 1970s, but the Swedish results declined significantly over time through 2012; they then showed improvement in mathematics and reading skills in 2015. Gustafsson and Blömeke (2018) have hypothesised that decentralisation, deregulation and marketisation of schools, which began to be implemented in the early 1990s, are important factors that help explain the decline in Swedish performance through 2012. These factors are believed to have had a negative impact on teacher professionalism and contributed to segregation in schools. What importance the emphasis on a facilitating teacher role (in combination with emphasising learners' own responsibility for learning) has had on results in Scandinavian countries remains an unresolved empirical question.

3.9 Significance of Large-Scale International Surveys for Society's Assessment of Educational Quality

Sweden and Norway carried out a full comprehensification of upper secondary schools in the 1970s, with the Norwegian arrangement clearly inspired by the Swedish effort. Vocational and academically oriented schools were spliced together into one type of school system. Passage between these programmes was possible, and access to universities via vocational education was also opened up. Special classes and special schools for people with learning difficulties were often shut down. However, special schools did not disappear completely; only their number was reduced. A new system of integrated special education arose. Learners with special needs were to receive adapted education within the framework of regular schooling. Special teachers would come to the classrooms or special rooms to help if needed. Nordic politicians of the 1970s were often proud of the development of the comprehensive school model and the full integration that was implemented. For instance, then Norwegian Church and Education Minister Bjartmar Gjerde stated in 1975 that Norway had "the world's best education". The claim remained unchallenged despite evidence from large-scale international surveys, which cast doubt on its validity. While the Nordic comprehensive and extended school model had previously been viewed with some admiration and interest, large-scale international surveys have changed the perception of the educational quality in the Nordic countries, with the exception of Finland. In particular, the large-scale surveys PISA, TIMSS and PIRLS have gained the attention of politicians, educational administrators, educationalists, the press and socially interested people. By means of the PISA survey, the OECD has adopted an institutional development role as arbiter for global governance in education, diagnostician, senior judge and advisor in the promotion of global education. It used to be self-evident that each country's own educational system should be controlled by that state and subject to a more or less exclusively domestic discussion. Since the turn of the millennium, however, the OECD's measurements have been the determinants of directions in educational policy, while the OECD's country-specific advice has been given pride of place, and the heart of that advice is a transnational assessment perspective. The OECD is conscious of its role in influencing the educational policies of individual countries. The OECD's PISA has thus contributed to shaping the climate for discussions on what constitutes ideal schooling, and the media have helped create a powerful PISA discourse.

The results of large-scale international surveys have played an important role as evidence for shaping policy. Increased requirements for professionalism and competence development and more resource-oriented forms of management became hallmarks of education governance in the 1990s. The emphasis on globalisation brings with it a more competitive spirit. From the mid-1990s, education was the subject of tight fiscal policy in several countries, a situation that was only exacerbated by the international economic crisis in 2008. The introduction of management by objectives and governing by results has been blamed for many problems and challenges that have arisen. Several attempts have been made to meet challenges in

the education sectors, including the individual's opportunities for development and the power of social cohesion. It has been claimed that keywords such as accountability, competitiveness, economies of scale, resource management and performativity (both targets and standards) lead to the deprofessionalisation of teachers (Lindblad et al., 2018). In these and other scholars' views, education rapidly loses its social meaning and becomes commoditised.

The Nordic countries show both similarities and differences in these large-scale international surveys. Some people claim that the results of these surveys demonstrate strengths and weaknesses in the educational systems of the individual countries and can provide a basis for changes in educational policy. When the first PISA survey was published on 4th December 2001, the Norwegian results struck like "a bolt of lightning", as the former head of the Norwegian Directorate of Education and Training put it: "The Norwegian authorities […] had assumed that Norway would be the best in the OECD" (Gjerdåker, 2008). Finland was announced as the "winner" of the first PISA survey in 2001, while the other Nordic countries were in the middle of the pack and have generally – with a few significant exceptions – stayed at that level since then. It is fair to speak of PISA shock. PISA and subsequent large-scale surveys have received a good deal of press attention, so the results of these surveys have played a significant role in how the general public regards the quality of primary and secondary education. The large-scale surveys have also attracted the attention of politicians and have changed their opinion in the direction of taking a comparative perspective on learner performance. The notions of the knowledge economy and human capital have gained significance in political debate. The most striking example with respect to the significance of the knowledge economy is that South Korea and Afghanistan were at about the same level of development at the end of the 1950s; 60 years later, they have significant differences because of the South Korean authorities' emphasis on developing a knowledge economy. A possible contra-indication is that some countries with a relatively low standard of living can boast of relatively good educational results in large-scale international surveys.

An idea related to the knowledge economy is the view (which has seeped into the debate about the school's role and function) that the various year groups in the school should contribute to a "value chain". Before the new millennium, the debate about what constitutes an ideal school was polarised and clearly divided along the political spectrum. For instance, the political left in Norway expressed scepticism about the significance of international comparisons (Koritzinsky, 2000). Subsequently, elements of the political left have not only accepted but also highlighted the connection between the school's functions and economic development. The economic motive is more heavily present than ever before in political discussions about education. Some researchers emphasise the considerable significance of the connection between educational quality and economic growth since all children acquire basic skills; a qualitatively good education increases both production and the growth of productivity, because more people are working and more people are doing so more intelligently (Hanushek & Wößmann, 2010). Other research may suggest that the connection between a country's ranking in international educational

comparisons in maths and sciences and future economic strength is stronger among low-performing than among high-performing countries (Tienken, 2008).

The great surprise in international comparisons of educational quality was the top ranking given to Finland in the first PISA survey. Expressions such as "the Finnish miracle" were used to describe the development of Finnish education. Delegation after delegation (including the author) have visited Finland for a first-hand view of its schooling and teacher education by observing classroom teaching and interviewing learners, teachers, student teachers and teacher trainers. Finnish teacher education has been proposed to have played a significant part in creating this Finnish "miracle", along with factors such as high teacher autonomy and the prestige accorded teachers in Finnish society. However, a causal connection between the specific features of Finland's teacher education programmes and the success of its educational system cannot be directly proven. Since Finland was a pioneer in requiring a 5-year research-based master's degree for primary and secondary school teachers, many other countries have followed suit. The design of Finnish teacher education has thus become a model for other countries. With the exception of the Danish system, primary and secondary school teacher education in all Nordic countries now involves a 5-year professional course, including a research-based master's dissertation, in addition to all the research-based content over the course of the programme itself. The 5-year master's course has become the new gold standard for teacher education, but it is not so much the teacher education institutions as external factors that have driven this development. Organisations like the OECD have provided advice to member countries about how they should shape their teacher education programmes. This is an example of transnational "governance"; to an increasing degree, the dynamics of change have been driven by external factors.

There is a pattern in the sequence of presenting the results of large-scale international surveys and subsequent reforms, with Finland remaining the exception. Since PISA 2000 survey was published in 2001, critical attention has been paid to schooling and teacher education programmes. School systems have been reformed, often after expert reviews. Additionally, evaluations have been carried out, followed by reforms of teacher education programmes. For instance, evaluations were carried out in the Danish (2003, 2018 and 2021), Swedish (2004, 2008 and 2018) and Norwegian (2006 and later) teacher education programmes after changes in views on schooling that followed the publication of the inaugural PISA 2000 survey. Teacher education in Norway, Sweden, Denmark and Iceland was subjected to criticism. Significant teacher education reforms were then carried out in Norway (2010 and 2017), Sweden (2011 and 2022), Iceland (2008 and 2011) and Denmark (2012/2013). These reforms have themselves since been evaluated, which in turn has led to more discussions and possible changes. In other words, there are significant similarities in the dynamics of the trajectory of teacher education in Norway, Sweden, Denmark and Iceland. Finnish teacher education, by contrast, has not shown the same dynamic pattern in policy development since the university arrangement was inaugurated in 1979.

Education is intended to lay the foundation for the skills needed for life after schooling (as future employees, engaged citizens, consumers, etc.). As such, teacher

education is also viewed in connection with economic forces in society; education, including teacher education, should contribute to strengthening a country's economic competitiveness. It is therefore particularly interesting to study teacher education in the Nordic countries from a comparative perspective and with a focus on the mutual influences among these countries.

To an increasing degree, teacher education is influenced by transnational development trends. There has been considerable interest in the Finnish teacher education system after its success in large-scale international surveys. With its 5-year research-based teacher education leading to a master's degree, the Finnish model has been viewed as a yardstick for teacher education provisions in other countries. According to The British Education Research Association (2014), there are four main ways that research can contribute to programmes of teacher education:

1. the content of such programmes may be informed by research-based knowledge and scholarship
2. research can be used to inform the design and structure of teacher education programmes
3. teachers and teacher educators can be equipped to engage with and be discerning consumers of research
4. teachers and teacher educators may be equipped to conduct their own research, individually and collectively, to investigate the impact of particular interventions or to explore the positive and negative effects of educational practice.

We can conclude that primary and secondary school teacher education has been broadened in European countries, which has often led to more academic specialisation (often in a limited number of subject areas), more practice and more subject-based didactics. This series of developments has occurred partly within concurrent models and partly within consecutive ones. There has been a recent tendency towards strengthening concurrent models. Primary and secondary teacher education in particular has integrated models, although the *lecturer* programmes (Master Studies in Subject Didactics) that qualify teachers for work in lower and upper secondary schools also have elements of integration in their design. Subject didactics have grown into research-based subjects in teacher education programmes. Those programmes have also largely been offered in universities or university colleges where research is conducted, and it has become more important over the years that campus teacher trainers hold a doctorate. Several teacher education institutions have been relocated to universities in Finland (1972), Iceland (2008), Greenland (2008) and the Faroe Islands (2008). In Sweden and Norway, the conversion to universities of educational institutions began in 2010, and the process is not complete. It is likely that more and more university colleges will be transformed into universities in the future. Denmark has chosen a model with 4-year teacher education for the primary and secondary levels at university colleges and a separate course for upper secondary teachers at universities. The conclusion must be drawn that master's-level teacher education has become widespread in the North, although it is by no means universal across the northern part of the continent.

Teacher education institutions in most European countries have a significant degree of decision-making autonomy within their national frameworks. Research plays a role in developing student teachers' knowledge of and skills in educational research. This is often linked to writing a bachelor's or master's thesis that relates to the field of practice.

The Bologna Declaration directs countries to shift their focus from learning inputs to leaning outcomes. From this perspective, the purpose of teacher education becomes competence goals and skill goals related to what the student should be able to do after the course of study. Many European countries are experiencing a trend towards the use of a skills framework, where the skills that are expected of a teacher are described as goals. The skills framework describes the areas that a teacher should know and be able to execute and often includes academic knowledge, pedagogic and subject-based didactic knowledge and skills in working together with other teachers. These are sometimes formulated as descriptions of general skills; at other times, they are presented in greater detail.

The Bologna Declaration's aim of exercising control through evaluation and quality assurance has been institutionalised in all the Nordic countries. Most European countries employ some form of evaluation. Since teacher education involves both campus teaching and teaching practice in schools, evaluation can be complicated. External evaluation of teacher education programmes is carried out by independent quality assurance bodies. The evaluators will generally visit the institutions; external experts, student representatives and representatives of the evaluating institution often form part of the evaluators' group.

Another educational trend is that the PISA subject areas – maths, sciences and reading literacy – have received a great deal of additional attention. In the Nordic countries, there have been special initiatives in these PISA subject areas such as "Maths Promotion" in Sweden and "Make room for reading" in Norway, along with extensive school reforms like the Knowledge-Promotion Reform in Norway. These initiatives and reforms have also been indirectly significant for the content of teacher education and for the introduction of standardised tests and national testing.

The Bologna Declaration also promotes internationalisation through student exchanges, although this element has not had the same impact on teacher education as on other university subject areas. Nevertheless, the participation in study-abroad programmes has increased in the Danish teacher education programme (Danish Agency for Science and Higher Education, 2018, p. 21), although with some complications. Other barriers to the trend towards more internationalisation are different structures of teacher education programmes (e.g., school practice periods), national peculiarities and language barriers (Zgaga, 2013). Teacher education entails the coordination of activities and facilities geared towards students in the teaching field. In some universities, coordinating campus teaching with teachers' school placements is a significant challenge. In practice, this has led to different solutions that in turn creates challenges for tailored adaptations of different study variants and makes student exchange between countries difficult.

The education authorities tend to facilitate the education of young people who are considering higher education in their choice of teaching as a career. For instance,

Denmark offers 4-year teacher education programmes. There are also supplementary education programmes that provide competence in teaching, targeting at those who have completed an academic education in another field and find education in the teaching profession appealing. Practical pedagogical education in Norway, "supplementary educational education" in Sweden and "merit teacher education" in Denmark are examples of courses that can be taken by people who have already earned a degree; they can achieve teaching competence by receiving the appropriate level of pedagogical education. These consecutive programmes are important for recruiting teachers in the Scandinavian countries. In 2006, Swedish authorities established "foreign teachers' continuing education" as a fast-track trajectory. This became a complementary education programme for people with a non-Swedish teaching degree to obtain teacher credentials.

Alternative teacher education programmes have also emerged in the Scandinavian countries, which can be interpreted as an implicit criticism of existing programmes. Many of the alternative programmes fall under the Teach for All network (which multinational corporations lie behind). These programmes primarily portray themselves as altruistic movements that seek to give all children an equal education. For example, a civil engineer is allowed to take a pedagogical supplement and participate in a management programme. The premise is that this person should teach before moving on to another career. This tendency has proven to be particularly strong in England and Wales, where more than 15,000 teachers have chosen this alternative teacher education route. The core of the programme is that candidates aspiring to a professional career in the business world should teach first. This phenomenon shows the porosity between the public and private sectors. Ball (2012) shows that multinational corporations (for instance the international consultancy group McKinsey) lie behind "Teach for All' movement, which brings the private sector near the foreground.

In the wake of the British success with Teach First, similar alternative teacher education programmes have spread to 14 European countries: Latvia, Estonia, Norway, Sweden, Denmark, Lithuania, Germany, Austria, Belgium, Bulgaria, France, Romania, Slovakia and Ukraine. However, these alternative programmes have attracted comparatively modest interest in the Scandinavian countries: Teach First Norway admitted 15 students in 2021, Teach First Denmark admitted 45 students in 2021, and Teach for Sweden signed up a record 48 student teachers in 2021. The initiative for the Norwegian Teach First programme came from a Norwegian municipality that developed a teacher education programme in co-operation with Equinor, the state-owned Norwegian energy concern.

3.10 Economic Conditions and Their Influence on Education

Several scholars have suggested that the Nordic model is under pressure. The digital revolution, globalisation and ageing populations all pose significant challenges for the labour market in the North and for the Nordic welfare model. Productivity plays

a crucial role in economic growth and competitiveness. High levels of productivity are a crucial part of the foundation needed to maintain high standards of living in the long run. In European countries, including the Nordic countries, labour productivity growth has largely been declining. Productivity among both Nordic and other European countries has shown signs of weakness that have been exacerbated over the last decade (Szczepański, 2018; Bauer et al., 2020), as South and East Asian economies gained momentum. To some extent, it is also these countries that top the tables measuring knowledge development (PISA, TIMSS and PIRLS). The connection between the education system and economic development is highly complex and likely means less in a Europe characterised by high mobility and migration. On the other hand, it is difficult to imagine an education system in decline at the same time as economic life is flourishing. Nevertheless, it would be valuable to reflect on the education systems in these countries with high productivity development over time with Nordic conditions. Can the Nordic model as we know it "survive" in an era of increased global competition, with countries in South and East Asia making progress on virtually all performance indicators? We can begin to address this question by focusing on an example.

The Singaporean "workfare" model (Yue, 2011) stands in stark contrast to the Nordic welfare state model. Singapore has virtually no natural resources, and its population suffered from widespread poverty and illiteracy when the country became an independent state in 1965. Today, roughly half a century later, Singapore has become one of the richest states in the world in terms of per capita GDP. Singapore tops large-scale international education studies and is therefore one of the leading examples of covariation between improvements in school systems and economic development. The "workfare" social model used in Singapore is based on a meritocratic ideal that includes the principle that everyone should have equal opportunities for success, even in education. Singaporean authorities have invested heavily in a differentiated education system (after the sixth level of schooling) as a basis for knowledge-based professional practice and innovation. Among other things, this means that students are placed in different educational tracks relatively early, based on an assessment of their potential (Lim & Tan, 2018). In Singaporean society, school achievements are made more visible than in Nordic countries. This shows the differences in emphasis on school performance between different cultures. Teachers are treated with great esteem in Singapore, and the school culture emphasises intensive learning and thus a drive for performance. The focus of teacher education in Singapore is on shaping the teaching profession such that its requirements, practices and career paths are as clearly defined as those in more established professions like medicine (Mourshed et al., 2010). Singapore's teacher education programmes have strict entry requirements. These programmes specify high levels of academic and pedagogical knowledge and a well-monitored school practicum.

While the general tendency is for Nordic countries to converge towards an international average, Singapore maintains its place in the top tier. The extent to which these differences are due to systemic differences, cultural conditions or other factors is an unresolved question, as is the notion that school culture in the Nordic countries can learn something from Singapore (or vice versa). On one hand, OECD

publications (2016) emphasise that the distinctive features of the educational systems found in several South and East Asian countries are important for follow-up studies and emulation. On the other, the Nordic countries' common values – focused on democratic understanding and citizenship, low power distance in society and fundamental respect for individual autonomy (Hofstede, 2005; Laursen, 2013) – are also emphasised as valuable characteristics that should be maintained. On the question of what makes an ideal school, several views will arise. One key question is which "story" wins people's hearts and minds. Should education policy take a more performance-driven direction and thus improve the Nordic countries' positions on international rankings? Alternatively, should we adhere to the idea of an organisationally undifferentiated school for everyone?

3.11 Nordic Countries at the Crossroads

As shown in Chap. 1, there are close historical links between the Nordic countries. On the question of education after World War II, the idea of Nordic co-operation has never extended to adopting a common education policy (although grand ideas about co-operation have been proposed, Klette, 2018a, b). However, the countries' policies show mutual loans of good ideas (for example, "Municipalities that focus on science in schools", "Partnership between teacher education institutions and practice schools" and the like). Until the turn of the millennium, the national perspective on schooling and education prevailed in the independent Nordic countries' education policies. This also applied to teacher education. However, the expansion into 9- or 10-year schooling took place, taking inspiration from Swedish policy. After the turn of the millennium, international comparisons and transnational governance became drivers of policy design and quality assessment, often on the advice of the OECD and other international organisations (e.g., the IEA, UNESCO, the IMF, the EU and the WTO). The PISA study and other large-scale surveys like PIRLS and TIMSS have gained great importance in how quality in education is understood by both the general population and politicians. The results of the first measurements after the turn of the millennium were considered unsatisfactory for and by Scandinavian countries. However, some efforts to look for ways to improve the school system were initiated. In response to the mediocre PISA results, for example, Norwegian and Danish education authorities chose quite different educational policy strategies although their results were quite similar (Hernes, 2008). There are also clear examples of the Nordic countries borrowing one another's educational policy designs (the idea of 'science municipalities', 'follow-up groups to evaluate teacher education reform', etc.). However, this must still be understood as a limited form of co-operation.

The PISA "crises" set in motion a number of reform measures in all Nordic countries' education systems, with the exception of Finland. It triggered reform measures for teacher education programmes at about the same time and, in the wake of those reforms, Nordic countries have exchanged expertise, used Nordic

benchmarking to study the effects of the measures, stimulated collaboration on Nordic educational research and so on. This can be understood more as a consequence of a common destiny than as transnational collaboration. In the experience of the Scandinavian countries, the goal of educating general teachers with general teaching competence for all of primary and lower secondary school has proven difficult to maintain with professional and pedagogical credibility.

The causal understanding of the PISA "crises" is controversial among educational researchers, but in the political landscape, the PISA results constitute an issue regardless of political alignment. Although the most extreme Scandinavian ideas about student autonomy and the teacher's facilitating role from the 1990s have faded from prominence, ideas originating in progressive pedagogy are alive and well – albeit newly clothed – in the required curriculum literature for teacher education (Henrekson et al., 2017) and in educational policy documents. Progressive educational ideas still flow from the teacher education and educational administration environments, while the general public is less convinced by progressive education than educators. On this question, there has been a distinction between the Scandinavian countries and Finland, where progressive pedagogy has not produced the same impact on either educational policy-making signals or on actual school practice (Simola, 2015). The Finnish educational tradition has stronger ties to a continental European encyclopaedic knowledge tradition than is the case in the Scandinavian countries. However, in the last years a decline in Finnish students' learning outcomes has been reported in several investigations. Saarinen (2020) found that some pedagogical practices within the school system, such as frequent use of self-directed learning practices or digital learning material, were found to increase variance in learning outcomes between students coming from different backgrounds in Finland. In Iceland, progressive ideas have been limited for other reasons (Sigurgeirsson, 1998).

The comprehensive school for all and the extension to 9- or the 10-year schooling have been realised over time in each Nordic country. The comprehensive school's design is the result of politics, political attitudes, the exercise of power and a commitment to compromise. In all Nordic countries, the publicly run comprehensive school has become a municipal responsibility within the framework drawn up by the state. In various ways, however, the Nordic countries have chosen to deal with a factor that undoubtedly affects the teaching profession's status over time – the increase in wages and the improvement in work conditions. In the Scandinavian countries, governments have decentralised employer responsibility to a joint municipal organisation. The causal perceptions of the consequences of this communication of teachers' work conditions are doubtless controversial, but the diverse status of the teaching profession in the Nordic countries is indisputable. The OECD's TALIS 2018 survey showed that, among Nordic countries, only teachers in Finland perceived their profession as appreciated by society (OECD, 2020). Swedish teachers were in the bottom echelon of perceived societal appreciation, and Icelandic and Danish teachers also placed themselves in a relatively low position. The Norwegian teachers' perception of the teaching profession's appreciation in society was close to but still somewhat below the international average. There are no equivalent

measurements of teachers' perceptions of society's appreciation of them from before the turn of the millennium, and it is only in recent years that teacher status measurements have been consistently conducted. Nevertheless, many teachers believe that the status of their profession has declined over a long period of time (Bertilsson, 2011).

The comprehensive and extended school-for-all model has become an important and admired feature of education in the Nordic countries. However, there are signs that the commitment to ensuring school for everyone is about to crack. In the Swedish case, that process actually started in 1991, when the Social Democratic government introduced the right to choose among the home municipality's schools in combination with allowing private schools to receive state funding. The following year, a conservative–liberal government adopted a policy of making public contributions to private and public schools. Education-focused politicians from conservative parties abroad flocked to Sweden in the 1990s for a closer examination of the Swedish experiment (Bennet, 2018). The Swedish policy contained a generous funding scheme for private schools, which led to greater differences and more segregation. Most importantly, this applied to tendencies towards the segregation of learners and the development of school market for powerful social groups. Today, the Swedish government has committed to developing "a basis for [a] decision that might create stronger conditions for state government for the school" (January Agreement, 2019). Over time, the use of instruments can fluctuate between promoting local solutions and state governance. Time will tell whether the Swedish state wants to take back more of the power that it had earlier delegated to municipalities and private companies. Some antecedents to this have already occurred through state control of teachers' formal qualifications.

There are also signs of divisions within the Nordic countries that would have been unthinkable 20 years ago. Dealing with the 2015 refugee crisis led to closed borders, and the COVID crisis in 2020 and 2021 did the same. Are these the first signs of a greater distance and thus a weakening of the spirit of co-operation between the Nordic countries? Nordic co-operation is still celebrated when prime ministers meet for annual meetings, but we can sense cracks behind the sweet talk.

In education, segregation means that many young people attend schools with learners resembling themselves in socioeconomic and ethnic terms. Segregation further weakens the realisation of equality in the Nordic school model. These trends are particularly marked in Sweden (Kornhall & Bender, 2018) and Denmark (Hansen, 2011). The intention to create diversity in the types of public schools in Norway could also contribute to weakening the realisation of the comprehensive school. For example, one political party proposes to "establish several profile schools at the junior level, so that the lower secondary school provision becomes more diverse and that learners can immerse themselves in different areas" (The Conservative, 2018). The Swedish authorities announced in 2022 experimental activities with nationwide advanced classes in theoretical subjects in primary school and in secondary education (Tidö-Agreement, 2022). In 2018, the Danish government proposed the creation of a new, hybrid school variant – autonomous schools – which comprised a mix of public and private schools (Danmarks Radio, 2018), but

the proposal did not achieve sufficient political support to be put into practice. In January 2019, however, several political parties entered into an agreement on a renewal of the public comprehensive school (Agreement, 2019). Several features of the development indicate tendencies towards greater heterogeneity in the schools' offerings of courses and arrangements. The fine aspects of adjusting the school's funding model can also contribute to weakening the comprehensive school's realisation. The tension between equality values and the need for differentiation appears to emerge in ever-new forms, and the future of the comprehensive and extended school for all should be a matter for further public debate.

While in-country discussions about what a "good" school means were typical before the turn of the millennium, international comparisons relying on large-scale quantitative studies have become far more important since then. In the political debate on quality development in schools, this perspective of comparison is sometimes dominant.

An embarrassing incident occurred when the Swedish National Audit Office directed harsh criticism at both the National Agency for Education and the government: Sweden incorrectly exempted a large proportion of students from PISA 2018, in violation of the official regulations. The latest PISA survey was presented as a message of joy for the Swedish school. The Swedish PISA results were criticized by both researchers and the Swedish press when they were published because the sample of students was biased. Subsequent investigation has shown that the critics were right: the results showed a false progress (National Audit Office, 2021). The question was whether one could trust the Swedish authorities' handling of international investigations. This also illustrates the importance of arguments from international studies of student assessment in the debate about what constitutes a good school.

"We must have the best school in the world" is an expression used by the rhetoric policymakers to justify their political approaches. What constitutes the "best school in the world" depends on the criteria one chooses to make such an assessment, but the aspiration to excel in PISA is linked to the political debate expressed in this statement: "In ten years, Sweden will be among the top ten in the knowledge measurement PISA" (The Alliance, 2018). Almost the same parties that make up the majority in parliament recently stated, "The goal is to raise the knowledge results in the Swedish school" (Tidö-Agreement, 2022). An echo of this excellence talk also concerns teachers: "Denmark must have world-class educators" (Halsboe-Jørgensen, 2021).

Visions can serve to inspire effort; they can be unifying and mobilising for everyone involved in schools and teacher education. From 2001 onwards, it has been an important goal for politicians in the Scandinavian countries and Iceland to enable their respective countries to rise in the PISA rankings. The large-scale surveys that have become popular over the last 20 years provide central empirical data that form the basis of the perception that comprehensive and extended school models in

Scandinavian countries are mediocre in terms of outcome. In the nearly two decades since the breakthrough of large-scale surveys, performance improvement has been quite limited, even as policies have been oriented towards achieving a higher ranking. Educational debate can be served by an orientation to reality and by value-based reflection.

The road to better schools and a better teacher education system is winding, and it can be difficult to navigate between conflicting and even contradictory desires. However, two simple questions are:

- What kind of experience do children need in order to grow and learn, to develop the confidence and competence they need to succeed in life?
- What kind of knowledge do teachers need to have in order to facilitate these experiences (Bransford et al., 2005, 20–21)

With such a starting point, it is easier to navigate between Scylla's exaggerated academic mission and Charybdis' exaggerated professional mission. Both dangers are real for today's teacher education.

In practical solutions to difficult dilemmas, there may be gaps between intention and reality. For example, the practice of organisational differentiation appears to be widespread in Norwegian schools (Hatlevik & Rohatgi, 2016), although Norwegian legislation explicitly prohibits typical organisational differentiation. A critical question is whether the ideals of the Nordic school model and PISA-inspired effective and efficient facilities in the educational structure are fundamentally compatible. If they are not, the natural conclusion is that there must be a trade-off between them. Could the ideas about the comprehensive and extended school for all and its ideals or equality be challenged over time if politicians and educational administrators continue to emphasise stronger performance-effective instruments in educational policymaking? Moreover, how should other quality aspects, such as learner satisfaction and well-being, be balanced against PISA-inspired effective and efficient facilities?

There is a trade-off between the qualities of the comprehensive school system and the more traditional school systems that put more pressure on learners and assign them to learning tracks. Often this traditional arrangement leads to better achievement (Opheim et al., 2010). In the political debate surrounding this issue, such fundamental questions are rarely posed, but the quality of the debate can be improved by a more reality-oriented approach that considers actual cases and takes a position on difficult trade-offs. Political sweet talk can easily appear to be rhetorical incantations that the Nordic countries should have the world's best school as measured through PISA's ranking list. Instead, we should ask what type of school we want to have. The comprehensive and extended school's dilemmas are also the teacher's dilemmas because the questions of what makes an ideal school and an exemplary teacher education are deeply and inherently linked.

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Part II
Teacher Education in Nordic Countries and Autonomous Areas

Chapter 4
The Education of Teachers in Sweden: An Endeavour Struggling with Academic Demands and Professional Relevance

Björn Åstrand

Abstract This chapter presents the main features of how teachers are educated in Sweden, including current reforms due to teacher shortages and criticism of teacher quality. It based on from the notion of teacher education as a societally critical activity, orienting around tensions, balances and difficulties in teacher education. It is argued that teacher education is a complex activity that policy and practice unfortunately do not pay adequate attention to. Teacher education in Sweden is profoundly varied. Recurrent top-down reforms complicate teacher education, as an understanding of the central aspects of teacher education has not been agreed upon or endorsed. The continued criticism of teacher education, despite many reforms and changing practices, might indicate that recurring political demands to reform teacher education rest on unclear or inadequate grounds or incomplete information, or they might be conditioned by overarching political motivations. As teacher education is central to education in general and to the advancement of democracy, this is particularly worrying. It is through an analysis of the full complexity of teacher education that it becomes possible to design adequate reforms that result in transformative work on how to 'get better at getting better', a feature that applies to both organizations and professionals.

4.1 Teacher Education: A Societally Critical Activity

As long as formalized education has been necessary, it has also been critical to ensure that teachers are competent. Even in the sixteenth century, Swedish legislation emphasized the importance of teachers and the profound difficulty of their

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task.[1] Education was regulated under the legislative framework of the church, the statutes of which emphasized the importance of education and that teachers themselves had to be educated to master teaching to become educators. That legislation also acknowledged how difficult and lamentable teaching could be, the importance of generous remuneration for teachers and the general necessity for humans to learn throughout their lives, positions that are profoundly relevant in contemporary debates. The formal structures for acquisition of knowledge and competence necessary to successfully shoulder the responsibility to educate others have shifted over time along with the wider purposes of education. How to educate teachers appears to always be depending on the models for education either in place or viewed as desirable to have in place and on diverse notions on children and youth.

4.1.1 Education as a Central Societal Endeavour

Today's models for compulsory education and teacher education are comparatively new, even though these vast, complicated and interrelated tasks are in principle similar over time. Children and youth are to be educated towards agreed (but perhaps changing) aims, and teachers must be prepared towards becoming the best possible facilitators of their student's development despite varied backgrounds and situations. Educating students into teachers involves the formation of professionals who can work systematically, methodically, and innovatively for schools to fulfil their purposes.[2] Herein lies both the complexity and the enormous importance of this endeavour. The current Swedish Education Act and compulsory school curriculum state that education aims for students to "acquire and develop knowledge and values" and to "promote all students' development and learning and a lifelong desire to learn" so that all students can "find their unique character and thereby be able to participate in social life by giving their best in responsible freedom". Education must consider the "different needs of children and pupils".[3] It is to be provided in collaboration with the family to best contribute to the students' comprehensive personal development into active, creative, competent and responsible individuals and

[1] Educational issues were at the time part of ecclesiastical affairs and thus politically important as part of the ongoing shift from Catholicism to Protestantism in Sweden during the sixteenth century. Consequently, the oldest national historical records on education governance are to be found in ecclesiastical legislation; namely, the ordinance from 1571. See Samfundet Pro Fide et Christianismo, eds., *Laurentius Petris Kyrkoordning av år 1571* (Stockholm, 1932), pp. 173–93.

[2] This relationship is not one-dimensional. As Stina Hallsén points out, the relationship between teacher education and schools is only partly the dimension emphasized here: that teacher education should prepare people to work in schools and thus in some sense be adapted to that work. In a more change-oriented dimension, teacher education is perceived a way to change schools. Hallsén, S (2013), *Lärarutbildning i skolans tjänst? En policyanalys av statliga argument för förändring*, Uppsala Studies in Education 133 (Uppsala: Acta Universitatis Upsaliensis).

[3] Education Act, Chapter 1, Section 4 (unless otherwise noted, all translations are by the author). Cf. Curriculum for Compulsory School, 2011.

citizens. Thus, the school, its organization and the structure of each individual school unit must have access to a variety of competences. As part of the "public", it must, in addition to its focus on every pupil, further "the ideas of democracy to become guiding in all areas of society".[4]

One increasingly crucial aspect of Swedish teacher education is its role in attaining nationwide equality among schools. When Sweden radically shifted its governance model from the central to the local level in the 1990s, the role of teacher education also changed and grew more important as a tool for national policy and educational equity; indeed, teacher education and the national curricula were more or less the only remaining national governmental tools for equality in education. At the same time, Sweden introduced school choice, expanding opportunities for private schools to operate and offering full public funding for private schools, which transformed preschool, primary and secondary education into a market-based model in which all units are, at least in principle, competitors.[5] Instead of the traditional focus on input factors like leadership, collaboration, competence and other resources, competition became the central mechanism for enhancement. This new landscape created specific problems for teacher education in that a more loosely governed and programmatically varied school system demanded a teaching profession educated for a more autonomous role while the increasingly decentralized model expanded the need for governments to control teachers.[6]

In the general debate on education in Sweden, as in many countries, a rather one-dimensional picture of educational issues has emerged, and there is a historical continuity in the tensions among different understandings of education. Powerful voices argue that education is primarily about basic knowledge acquisition, while others insist that education has a wider mission. Is education limited to qualification for the labour market and achieving employability, or is it about a wider kind of qualification that prepares individuals for citizenship and to become active members in and contributors to society? Does education also include socialization and subjectification? In essence, the spectrum stretches from perceiving education as about gaining skills to be used in labour to education as an endeavour that encompasses the vastly more profound process of becoming fully human.[7] The compromise that

[4] The quotation is from The Instrument of Government, one of the four fundamental laws that together form the Swedish constitution. (*Regeringsformen,* 1 kap 2§).

[5] For an overview of the process, see Åstrand, B, (2016), "From Citizens to Consumers: The Transformation of Democratic Ideals into School Markets in Sweden", in *Global Education Reform. How Privatization and Public Investment Influence Education Outcomes*, ed. Adamson, A., Åstrand, B. and Darling-Hammond, L. (London: Routledge, 2016), pp. 73–109.

[6] On systemic variation in Swedish education, see, for example, Rothstein, B. (2018), "Tillit som grund för framgångsrika organisationer – skolan som exempel", in *Styra och leda med tillit – forskning och praktik*, ed. Bringselius, L. (Stockholm: Statens Offentliga Utredningar, 2018:38), p. 43.

[7] Biesta, G. J. J. (2010), *Good Education in an Age of Measurement. Ethics, Politics, Democracy* (Boulder, CO: Paradigm Publishers, p. 22–25). Cf. Biesta, G. J. J. and Stengel, B. S. (2016), "Thinking Philosophically About Teaching", in *Handbook of Research on Teaching*, 5th ed., ed. Gitomer, D. H and Bell, C. A, (Washington, DC: American Educational Research Association), pp. 31–37.

dominates in Sweden is that both notions in principle are essential and that nothing should be omitted. In practice, however, the focus in Sweden – as in other countries – is primarily on qualification, especially for working life.

Tensions thus remain and surface over time, mainly in the form of shifting balances rather than tectonic changes. These tensions are also exploited in political debates and are articulated as demands for the reform of teacher education in one direction or another. While debating the quality of teacher programmes and how to best educate teachers has been a regular feature of public debate for centuries, the point of departure for the modern debate on teacher education can be found in an 1867 article in a Swedish educational journal about the increasing interest in providing schools with better-educated teachers by establishing special institutions for teacher education.[8] In the 150 years since that publication, we have seen a split between the normal school tradition and the more academic perspective of teacher education, a split that is deeply interrelated with the debate on the purpose of education and what is to be understood as the core of professional knowledge: deep knowledge of content or advanced teaching capabilities?[9]

Needless to say, education is of utmost importance to any society, for both the individual and the collective. Socrates argued that the most important public assignment was responsibility for educating girls and boys, and Diogenes later emphasized that the "foundation of every state is the education of its youth".[10] Since the advent of democracy, greater significance has been placed on the individual's right to education and the advancement of education to support desirable social progress. As a consequence, insigts into the huge importance of powerful models securing high-quality teaching has grown. As the need for the need for well-educated teachers has intensified, and different models for the connection between education in schools and the education of teachers have been developed, including models for the non-school-based parts of teacher preparation efforts. However, just as education is perceived differently, the notion of teacher education varies. It should be added that foundational ideas and priorities in teacher education have been understood as either out of step or timely due to education's proximity to the core – if shifting – notions of what it is to be human and what kind of society is desirable.[11]

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[8] Aulin, A. (1867), "Om lärarebildning", *Pedagogisk Tidskrift,* vol. 3, p. 357.

[9] Hartman, S. (2005), *Det pedagogiska kulturarvet. Traditioner och idéer i svensk undervisningshistoria* (Stockholm: Natur & Kultur), pp. 79–114; Buchberger, F, Campos, B. P. Kallós, D. and Stephenson, J. eds., *Green Paper on Teacher Education: High Quality Teacher Education for High Quality Education and Training* (Umeå, Sweden: Thematic Network on Teacher Education in Europe, Umeå University, 2000), pp. 3–16; Labaree, D. F. (2008), "An Uneasy Relationship: The History of Teacher Education in the University", in *Handbook of Research on Teacher Education: Enduring Questions in Changing Contexts*, 3rd ed., ed. Cochran-Smith, M, Feiman-Nemser, S, McIntyre, D.J. and Demers, K.E. (New York: Routledge, 2008), pp. 290–306; G. Williamson McDiarmid and Mary Clevenger-Bright, M., "Rethinking Teacher Capacity", in *Handbook of Research on Teacher Education*, ed. Cochran-Smith et al., pp. 134–56.

[10] Plato, *Laws*, book 6.

[11] Cf. "questions about the nature and purposes of education are ultimately questions about what it is to be, and about how we understand what it is to be, human", Standish, P. (2003), "The Nature

Because any description of a national system runs the risk of being one-dimensional, we strive here to broaden the perspective by using the extensive international research on teacher education.[12] Sweden is a small country, and research on teacher education in Sweden is comparatively limited.[13] Nordic teacher education offers an excellent basis for studies on teaching and learning within the framework of teacher programmes as academic professional education, and we hope this volume can contribute in this respect.[14] In analysing research in the field, Hallsén (2013), in line with Ahlström and Kallós (1996) distinguishes research *on* teacher education from research *for* teacher education.[15] She argues that such research focuses mainly on four thematic areas, of which the first two relates to research *for* teacher education, and the two later to research *on* teacher education:

- teacher education's relation to the teaching profession and student perceptions of their education,
- the content of teacher education,
- the governance and reform of teacher education and
- the history of teacher education.

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and Purposes of Education", in *A Companion to the Philosophy of Education,* ed. Randall R. Curren (Oxford: Blackwell), p. 231, and "it is impossible to talk about education apart from a concept of good life; people will inherently differ in their concepts of the good life; and hence they will inevitably differ on matters of education; therefore, the discussion of education falls squarely within the domain of politics", Cremin, L. A., (1990), *Popular Education and Its Discontents* (New York: Harper), p. 85.

[12] Some general points of reference: Cochran-Smith, M. and Zeichner, K. M. eds., *Studying Teacher Education: The Report of the AERA Panel on Research and Teacher Education* (Washington, DC: American Educational Research Association, 2005), especially Zeichner, K. M. and Conklin, H. G. "Teacher Education Programs,", pp. 645–735; Cochran-Smith et al., *Handbook of Research On Teacher Education;* Gitomer and Bell, *Handbook of Research on Teaching*; Darling-Hammond, L. and Lieberman, A. eds., *Teacher Education Around the World: Changing Policies and Practices* (London: Routledge, 2012); Tatto, M. T. and Menter, I. eds., *Knowledge, Policy and Practice in Teacher Education* (London: Bloomsbury, 2019); and Buchberger et al., (2000), *Green Paper on Teacher Education*.

[13] For examples of research on both teaching and learning in these programmes, see, Emsheimer, P. (2000). *Lärarstudenten som subjekt och objekt. Kritiskt tänkande och disciplinering i lärarutbildning*, Lärarhögskolan i Stockholm, 2000; Gustavsson, S. *Motstånd och mening – Innebörd i blivande lärares seminariesamtal*, Göteborgs universitet 2008; Eriksson, A. *Om teori och praktik i lärarutbildning. En etnografisk och diskursanalytisk studie*, Göteborg universitet 2009

[14] The Nordic Council of Ministers published a comparative study in 2009; however, this type of report tends to become outdated rather quickly due to the pace of reform: Nordic Council of Ministers: *Comparative Study of Nordic Teacher-Training Programs* (Copenhagen: TemaNord, 2009), no. 520. For more up-to date comparisons see, for example, E. Elstad, ed., *Laererutdanning i nordiske land* (Oslo: Universitesforlaget, 2020). For more historical comparative studies see, for example, Furuhagen, B. and JaHolmén, J. (2017), "From Seminar to University: Dismantling an Old and Constructing a New Teacher Education in Finland and Sweden, 1946–1979", *Nordic Journal of Educational History,* vol. 4, no. 1, pp. 53–81.

[15] Hallsén, S, (2013) *Lärarutbildning i skolans tjänst? En policyanalys av statliga argument för förändring,* Acta Universitatis, Upsaliensis, Uppsala Studies in Education No. 133, pp. 18–24.; Ahlström, K. G. and Kallós, D. "Svensk forskning om lärarutbildning – Problem och frågeställningar i ett komparativt perspektiv", *Pedagogisk forskning i Sverige* 1, no. 2 (1996): pp. 65–88.

Many individuals in today's societies might find it difficult to understand the complexity of the challenges of teacher preparation and the fact that it has more or less always been a struggle to provide schools with capable teachers.

This chapter describes today's Swedish teacher education model, its development and the challenges that appear to be of central importance for the future. The study uses current and relevant research on these issues, but the nature of the chapter also implies that it draws extensively on legislation, directives, agency reports and the like that, together with parliamentary records and other governmental sources, inform teacher education as a public endeavour. International research is used to put the Swedish trajectory into perspective and reveal what lies beneath the organizational surface. In addition to describing how teachers are educated in Sweden, the chapter outlines the basic issues and priorities that have guided its development. The focus is on pre-service (or initial) teacher education but also touches briefly upon aspects of the continuum of teacher education in terms of professional development. Swedish teacher education is perceived here as a significant example of how the professional formation is sandwiched and forced to navigate between educational change, demands from the profession and demands from academia, on top of all that comes with education being profoundly politicized. As such, the hope is to contribute more generally to the discussion of conditions for professions and professionalism as key features of modern society and how it handles complex tasks.

4.1.2 What Is Teacher Education? Context-Based Notions of the Concept…

It may seem trivial, but in terms of experience, there are reasons to clarify how this chapter understands the concept *teacher education*. Three aspects need to be clarified. First, in this chapter the chosen term is teacher education, not teacher training. Teacher education refers more appropriate to today's program content, form and features as academic programs within higher education, a term that also mirrors the significant shift the international discourse due to these changes since mid 1980s.

Secondly, it is not unusual to find that both teachers and students within higher education institutions tend to have a variety of connotations of the term teacher education. There is a particular ambiguity in the Swedish terminology that is surprising in comparison with languages and cultures more nuanced. A general understanding refers to programs in higher education that prepare students for entering the teaching profession. However, in contemporary dialogues teacher education ca also refer to more limited parts of these programmes, namely parts of the programs that are focusing on teaching, pedagogy, didactics and those parts that are school based.[16] That connotation may possibly reflect

[16] The 1946 School Commission addressed these more educational aspects of teachers' education as "future teachers' *real* professional education". (my emphasis) SOU 1948:27, pp. 357–361.

an older tradition for subject teachers, where prospective teachers were recruited to educational studies among those who have acquired necessary content knowledge in academic disciplines, studies that had no vocational orientation towards education. That understanding mirrors the idea of consecutive models for teacher preparation that contrasts what in Sweden nowadays is the dominant model, concurrent studies.[17] As both subject knowledge and pedagogical knowledge are central to teacher preparation, the term teacher education here means these programmes in their entirety, unless otherwise stated.[18]

The third aspect to pay attention to, is that it sometimes arises a confluence of the study programs as such with the organisations responsible for and conducting these programmes (i.e., its organisational base rather than its implementation). The fact that both the organisation for running these programs and these programs can be identically named in a conversation can cause a troubling ambiguity. If the organisational base of the programmes is intended, it is clearly stated or otherwise projected.

The unclarities and ambiguities in the Swedish terminology is something to reflect upon as it might indicate an immature terminology or lack of higher levels of a professional language. It is hard to imagine, that this kind of problems are to be found in areas like medicine or engineering. In addition, this lack of more adequate terminology, and hence understanding of the enterprise as such, might also observed in the fact that teacher seminars are still frequent terms in the public debate and in press in Sweden, neglecting the fact that all of them except one was terminated in

[17] As will be described later, the traditional consecutive model of teacher education for teaching in secondary school (subject specific) still exists and have gained increased interest during the later years in terms of a short period of studies (three semesters, full time, 90 ECTS) dedicated to make a teacher of someone who already are a subject specialist. However, what's important to take into account is that that the four and half to five and half year long (fulltime) programs that prepare students for secondary teaching are not consecutive in in the sense that the programs is dived in one content specific part and another more practical and pedagogical part. At the same time these programs are not concurrent in the traditional sense that students takes different subjects, like math, history, chemistry etc. in parallel during their studies but they are partly concurrent as school placed periods are intertwined during the whole program, as each subjects are studied intertwined in terms of the sequence of semesters (not in parallel during a semester) and as contents studies also contains studies addressing issues of learning and teaching within the particular subject. C.f. The so called, SIGMA-report that makes distinctions between concurrent, consecutive and integrated program models. (SIGMA Project – Teacher Education in Europe: Evaluation and Perspectives, Osnabrück, 1995, p. 8).

[18] Here, the concept of pedagogical knowledge is used, which may be less appropriate, but the expression is common. Again, here is a particular ambiguity in the Swedish tradition. The Swedish term "pedagogik" that usually translates into pedagogy can refer to general teacher education studies about teaching and learning as well as of conditions and prerequisites for learning etc. but also to the academic discipline with the same name (Pedagogik, usually translated into Education). As a consequence, there is a widespread belief that teacher students are studying Education (pedagogik) as academic disciplines which usually not are the case but very often, teachers from the academic discipline Education are contributing in these programs.

1960s and the final one in 2008.[19] Taken together, the ambiguity of the Swedish language, and the aligned difficulties to be precise (as well as being correct in translation) in combination with the partly anachronistic terminology in the public debate comes with a message on the need to be explicit, But this phenomenon is also interesting, how can it be that we have such difficulties in such an important area? Could it be the case that it signals shortcomings in how society approaches teacher education and teaching as a profession? Later we will find other signs of that. Unfortunately.

4.2 Education of Teachers in today's Sweden in the Light of its Historical Context

4.2.1 A Varied Landscape…

Sweden is a small country of just over 10 million inhabitants. For at least 15 years, around 400,000 students annually have studied at Sweden's 48 higher education institutions.[20] For a student aspiring to enter the teaching profession, 25 Swedish higher education institutions offered 431 programme options in the fall semester of 2021.[21] Between 10,000 and 14,000 students annually navigate these options and apply to become educated for teaching through these programmes.[22]

Teachers in Sweden are educated within the framework of regular higher education, which means that most Swedish universities and university colleges provide one or more teacher education programmes. Two important consequences follow from this fact: first, no educational institutions focus exclusively on educating

[19] According to the database over Swedish public media (Mediearkivet, June 2021) the term teacher seminar (lärarhögskola) was used around 450 times per year during the last 3 years. At one Swedish university, the organization for teacher preparation in that institution has since 2012 used the older term teaching seminar, however, that organization has no academic staff employed but is an institutional umbrella that organize other faculties and their employees into conducting teacher education.

[20] Swedish Higher Education Authority, "Fler studenter i högskolen 2019–2020", Swedish Higher Education Authority, updated October 13, 2020, https://www.uka.se/om-oss/aktuellt/nyheter/2020-10-13-fler-studenter-i-hogskolan-2019-2020.html; Swedish Higher Education Authority, "Lista över universitet, högskolor och enskilda utbildningsanordnare", Swedish Higher Education Authority, updated June 24, 2020, https://www.uka.se/fakta-om-hogskolan/universitet-och-hogskolor/lista-over-universitet-hogskolor-och-enskilda-utbildningsanordnare.html; as of 2021, 13 of these 48 institutions were private, 17 were universities and the rest university colleges.

[21] "Hitta utbildningar", accessed July 28, 2021, https://www.antagning.se/se/search?period=1&courseProgram=programs&freeText=L%C3%A4rare&semesterPart=0&numberOfFetchedPages=7. A total of 27 institutions are accredited for teacher education.

[22] Swedish Higher Education Authority, "Om lärarutbildning", Swedish Higher Education Authority, accessed July 28, 2021, https://www.uka.se/fakta-om-hogskolan/om-lararutbildning.html

teachers; second, teacher education in Sweden is delivered in educational institutions with varied profiles. Some teacher programmes are offered in highly specialized educational institutions, but that specialization is on areas other than teaching, for example technically or artistically oriented institutions, while other teacher programmes are provided in general educational institutions like comprehensive universities and university colleges. Some programmes are offered in institutions with more than 40,000 students, and others in institutions with fewer than a thousand students. As these institutions differ so significantly in size, focus and tradition, they likely also differ in academic capacity. As a consequence of this varied landscape, Swedish teacher education programmes have different contexts and conditions; for example, not all teacher programmes are delivered in institutions with the right to provide postgraduate education.[23]

Against this varied background, there is reason to question whether it is even possible to speak of *a Swedish model* of teacher education. However, this chapter aims to describe both the commonalities and differences in how teachers are educated in Sweden and the challenges these efforts face.

4.2.2 … but a Common Educational Structure

The way teachers have been educated in Sweden has varied greatly over time. Since 2011, teachers have been prepared for Swedish schools at all levels in one of four different programmes, each with its own degree:

- preschool teacher degree,
- primary teacher's degree (with three different orientations: teaching in preschool class and grades 1–3, in grades 4–6 and in leisure time centres),[24]
- subject teacher's degree (with a specialization in teaching in either grades 7–9 or upper secondary school) and[25]
- a vocational teacher's degree.[26]

[23] Swedish universities have a general accreditation to run tertiary programmes (typically PhDs), but university colleges can apply for such accreditation from The Swedish Higher Education Authority. This is an important opportunity for teacher education. For example, Södertörn University College and University College Dalarna, both of which offer teacher education programmes, also enjoy accreditation for PhD studies in educational sciences.

[24] Degree of Master of Arts in Primary Education – Pre-School and School Years 1–3; Degree of Master of Arts in Primary Education – School Years 4–6; Degree of Bachelor of Arts in Primary Education – Extended School.

[25] Degree of Master of Arts/Science in Secondary Education; Degree of Master of Arts/Science in Upper Secondary Education.

[26] Higher Education Diploma in Vocational Education.

4.2.2.1 The Legacy: Old Models Influences Novelties

Every model of teacher preparation is inevitably shaped by both older traditions and ideas and ambitions about the future, and Sweden's current model is no exception. The introduction of the comprehensive school model (grades 1–9) in 1962 was not accompanied by any teacher education reforms designed for that novel school model. Indeed, reform arrived only in 1988, with the implementation of a teacher education model that was better suited to the structure of the comprehensive school and aligned with a school system that was less divided.

Separate programmes for teaching in primary level and middle level schools was abandoned in the reform of 1988. Teacher education for compulsory school became divided into two programs, one for teaching younger children (grades 1–7) and the other for teaching older children (grades 4–9). When the school system was reformed from 6 years of mandatory studies into a 9-year comprehensive school model by parliamentary decisions in 1950 and 1962, as noted above, no new teacher education model for the "new" lower secondary grades (7–9) was launched. That lack was partly solved with the 1988 reform but was based on the primary teacher education tradition rather than the subject-specific teacher education tradition used in upper secondary; nor did it include a constructive combination of the two approaches. Whether it would have been more appropriate to prepare teachers for these grades based on the secondary education tradition is a matter of debate, but such a model was indeed introduced much later, in 2011. Before then, students qualified for teaching grades 7–9 by not fulfilling required periods of study for upper secondary teaching, i.e. by reduced length of study in each subject.[27]

In 2001, the structure of the entire teacher education field was fundamentally reformed by merging what had been eight teacher degrees into a single teacher's degree.[28] This in-depth reform was intended to strengthen professionalization by building on a common degree and by combining the establishment of a (common) professional knowledge base with both extensive profiling opportunities and common requirements for a degree project of such a level that everyone, including preschool teachers, would be qualified for doctoral-level studies. The reform did not intend to establish a single educational programme for all prospective teachers; rather, the idea was to combine some common content with increased diversification. While all new teachers would have the same degree, their diplomas would indicate the grades they were prepared to teach, the subjects they had studied and any other specializations.

[27] Those who graduated from an upper secondary programme were in fact eligible to teach lower secondary classes.

[28] The inquiry that preceded the reform had the somewhat symbolic title "To learn and to lead. A teacher education programme for collaboration and development" (*Att lära och leda. En lärarutbildning för samverkan och utveckling,* SOU 1999:63) but the following governmental proposition simply had the titel "A renewd teacher education" (*En förnyad lärarutbildning*, prop. 1999/2000: 135).

The current model, established in 2011 with four different degrees and alternative orientations, constituted again a profound change compared to prior reforms, which sought to strengthen the teacher's identity and ultimately the teaching profession through the establishment of a single degree. As with the medical profession, for example, the single degree both offered a common identity and foundational education for the profession and entailed requirements for specialization. By contrast, the 2011 reform emphasized different degrees for different types of schools, primarily related to the age of the students. A simplified trajectory of the reform is as follows:

- 1980s: A number of different programmes and degrees were offered.
- 1990s: The number of degree programmes and degrees was reduced in favour of a clear model of teacher education for the 9-year comprehensive school model.[29]
- 2000s: A single degree was established for preschool, elementary and upper secondary schools, including vocational subjects. However, the one-degree model did not aim to offer an identical educational programme for all student teachers; rather, the reform sought to establish a teacher identity with a strong individual profile by giving students a virtually limitless choice of courses.
- 2010s and currently: The model organizes teacher education into four separate degrees, two of which have two or three orientations.[30]

[29] It is important to note that Swedish education never rested on the traditional distinction between primary and secondary education. Rather, the school model relied on a fourfold division, simplified as follows: the lower (1–3), middle (4–6), higher (7–9) and final grades (10–12), of which grades 1–9 are organized as one school form (the compulsory education) and the final part as another (not mandatory but attended by lmost all). Historically, a problem of continuity was perceived due to the gaps between these levels; how teachers were educated towards those four levels reinforced that gap. So, the idea from 1988 to educate teachers for grade 1–6 or 4–9 was an attempt to bridge the gaps in education that had arisen when the 9-year comprehensive school model was implemented. A number of other measures were also undertaken to move away from the division into these periods of studies. For example, the formal terminology with separate terms for the three first parts were abandoned, and a shift occurred in how schools were built and organized, from separate schools for each part to more comprehensive schools for grades 1 through 9. The goal was a more holistic understanding of at least compulsory school (grade 1–9) was set aside in the broad educational reforms between 2006 and 2014, during the Liberal – conservative Alliance regime these years, and in teacher education reform.

[30] As a consequence of how the academic disciplines are constituted and due to the Bologna reform, graduates from teacher education programmes for preschool teaching are no longer eligible for admission to PhD programmes unless they undertake additional studies. The reform also significantly affected vocational teacher education, as the programme was reduced from six semesters to three. In practice, there was not much of a difference for many student teachers, as half of the programme consisted of professional competence that was usually acquired through working and was typically validated before admission. However, there were some vocational student teachers for whom that was not the case; they must meet significant additional requirements to access doctoral studies.

4.2.2.2 Structural Models in Change

Teacher education degrees can be obtained in Sweden in both first and second cycle studies, to use the Bologna terminology.[31] These programmes comprise a maximum of 330 ECTS (the European Credit Transfer System in which a year of full-time studies renders 60 credits, or 11 semesters of full-time studies) and a minimum 90 ECTS when a student already has conducted required studies or have appropriate work experience.[32] The foundational structure for these programmes are displayed in Table 4.1.

The two most recent reforms share a design with a common area of study in educational science for all students, but these reforms are profoundly different in

Table 4.1 The foundational structure of current Swedish teacher programmes

Area	Core of educational science	Practice (internships)	Assignment (essay, independent work[a])	Subject/ specialization studies
Credits	60 ECTS	30 ECTS	15–30 ECTS	0–240ECTS[b]

Source: Higher Education Ordinance, Appendix 2

[a]Included in the subject/specialization studies

[b]The requirement "0" credits of content-specific studies refers to vocational teacher education. In the older model, there was a requirement of 90 ECTS that in practice was usually fulfilled by a certain number of years of work experience within the vocational field. With the introduction of the current model, the practice of giving ECTS for work experience was abolished. The programme was consequently reduced from 180 to 90 ECTS and combined with an admission requirement regarding work experience. So, in sum, the figure "0" does not tell the whole story, and it would also have been misleading to use "90"

[31] Whether the teacher education field has clear examination opportunities at the doctoral level is a contentious issue that cannot be properly addressed here. This chapter only states that a wide variety of postgraduate education subjects, such as pedagogy, pedagogical work, didactics and subject didactics, are now offered in an area that can be termed educational science. In another model, the teacher's degree as a whole is a basis for qualification; another possible requirement is having worked a certain number of years as an active teacher. For example, this applies to admission to the postgraduate education subject pedagogical work at Umeå University. A further complicating dimension is that the administration at Umeå University has deliberately refrained from establishing the subject at the basic and the advanced levels, unlike the approach taken at other higher education institutions, which adhere to the more classic progression model. The idea was to organize PhDs-studies fro teachers primarily based on their identity as a teacher rather than their identification with separate subjects including Education. It should also be noted that the concept of educational science, used here as a descriptive term for an area, can also appear as a subject in certain educational institutions and that the transition rate from basic to postgraduate education is lowest in Swedish universities for those who have completed degrees in the areas of pedagogy and teacher education (Swedish Higher Education Authority, *2019 Status Report*, Stockholm, Swedish Higher Education Authority, 2020), p. 70.

[32] These examples relate to subject teacher education, with a focus on upper secondary school (with certain subject combinations) and vocational teacher education. Regarding the latter, student teachers' experiences in the profession to which their education refers are counted as their subject studies. In practice, the programme thus only covers studies in the core educational sciences and internships.

their orientation. The previous programme model was basically divided into three study areas: a general field of education, an educational area and an area of specialization. In simplified terms, the general field of education consisted of central areas of knowledge (such as educational theories) and "interdisciplinary subject studies", the educational area largely corresponded to subject studies and other traditional teacher education studies such as studies in teaching and learning language and mathematics for prospective teachers for the lowest grades, and specialization studies could involve drama, information and communication technologies and alternative pedagogies, subjects that might offer alternative insights into and perspectives on the more traditional areas of study. The assumption was that the many options offered would inspire students to craft their study profiles according to their interests and their understanding of what competence would be needed in schools in the future, enabling them to be clearer on how they would like to contribute.[33]

This model, with its three study areas, was itself an attempt to break with the traditional design of subject studies, pedagogical studies and practice. The model was very decentralized; it was up to each institution to decide which studies would be included in each area and offered students enormous possibilities to shape their degree profiles. This feature, however, was likely also the model's Achilles's heel. The variation between programmes in different educational institutions became significant over time, and the absence of requirement on students to in advance announce their priorities and the freedom to chose their subjects for secondary teaching caused difficulties for school districts. For them, it was easier to organize schools if, for example, all math teachers also were teachers in physics or at least science, not history or art. Demands were made for more uniform programmes; thus, two foundational understandings came into conflict. Simply put, the 2001 educational reform was designed to develop schools by providing them with novel types of teachers, but that form of governance clearly conflicted with the desire of many school districts and school owners to be provided with teachers who would fit easily into their current models rather than advancing their practice by adapting to individual teachers profiles.

As shown above, Swedish teacher education is a varied landscape. The most common programme form comprises traditional campus studies, with the teaching provided at a geographical location that students attend, although new forms of teaching have emerged. Traditional programmes consist of the parts mentioned above and programmes correspond to the basic notion of university education; namely, to offer predetermined study paths to young people who want to qualify for a professional career. Stated differently, these programmes are excellent for those who, before starting their higher education studies, already know that they want to become teachers. However, others also desire to become teachers, often after having obtained other degrees or undertaken other professional activities. For them and

[33] Cf. Åstrand, B. (2017), "Swedish Teacher Education and the Issue of Fragmentation: Conditions for the Struggle over Academic Rigor and Professional Relevance", in *Overcoming Fragmentation in Teacher Education Policy and Practice*, ed. Brian Hudson (Cambridge: Cambridge University Press), pp. 116–119.

those students who, during their studies at other programmes, realize that what they really want is to become teachers, other programmes are required, programmes that use these students' prior studies and achievements. These programmes are usually termed "short programmes" in the Swedish context but should not be understood as "quick" options or studies that are alternative in the sense that they offer entrance into the teaching profession without the same level of qualifications. They are called "short programmes" because they consist entirely of the unique set of classes in educational science and an internship that are not available within other programmes. A short programme does not offer a different degree; what is different is the organization of studies.

The prerequisite for being admitted to a short programme is that the applicant has pursued studies within the frame of other programmes or through the system of independent courses. For example, in his or her undergraduate studies, an engineer would have taken several mathematics classes, and graduates from a biology programme would have gained extensive knowledge of what's taught in the school subject biology; however, these types of prospective teachers are not qualified to teach in schools because they do not have a teaching degree. For these types of students, the short programme supplements their previous studies with classes in the core educational sciences and a practice-based internship. Thus, short programmes last only three semesters (90 ECTS).

This model has a particular history. After World War II, it was not widely advertised and was used as a rare and low-status exception that could be used by, for example, unemployed academics. However, this was once the main and in fact only avenue into subject-specific teaching, a model that was formalized in the early 1900s but which, in parallel with the reorganization of higher education studies, went from being based on studies in individual subjects into programmes designed to stretch over 3–5 years, as we have today, a change that put the former model in a bad light. The argument, which remains valid, was that you could better prepare a student teacher during a 5-year programme offering a specific sequence of learning events mixing different studies in a model focused on acquiring the professional competence required to be successful in the classroom than what was possible to achieve in a much shorter period of studies. So, the history is that the formerly primary model fell out of use and was replaced by the modern comprehensive programme model; in the last two decades, however, the old model has slowly been reintroduced and is now understood as a model that has as much merit as any other.[34]

The preceding section has provided a picture of the common structures as expressed in the national regulations. As we have seen, there are more than 400 educational options for a prospective teacher, which means that most institutions offer several variants of the same programme. The explanation for this variety is that all programmes can be provided in different forms, at different speeds and with variable requirements in terms of both previous studies and previous professional

[34] As this model was part of the more academic secondary teaching tradition, it was restricted to qualifying for secondary teaching. However, in early 2021, a ministerial report proposing teacher education reforms includes a model for primary teaching.

experience; they can also account for simultaneous employment in schools and studying teacher education.

Historically, there has been a diversity in the ways to pursue teacher education studies. There have long been both formal and informal opportunities for different paces of study. In addition to traditional campus-based programmes, opportunities for distance studies have been available in teacher education programmes, as with other programmes. These have traditionally been of three different types:

- Education is delivered at a location other than the institution's campus (most Swedish institutions are single-campus institutions) and provided by visiting teachers; these may be more accurately referred to as off-campus programmes.
- Education is provided as a distance programme, based on studies of literature and/or through various digital media, and students only travel to the institution's physical campus for certain occasions. Alternatively, education is available in digital form but linked to the many different learning centres that have been established in many small municipalities without institutions for tertiary education.
- Education is completely provided and examined via the internet.

In recent years, two more variants of teacher education have emerged. These apply partly to short programmes and partly to what are known as practice-integrated programmes: school-based programmes that mirror the American concept of teacher residency programmes, but with the difference that "interns" are employed for part-time teaching as a kind of substitute teacher under supervision.[35] These teacher residencies are organized so that schools employ student teachers part time as they continue their studies.[36] The driving force behind these programmes is the widespread teacher shortage and the effort to open new paths to the teaching profession. However, the model can also be viewed in light of the relatively large percentage of teachers who are employed in schools but lack a teacher's degree and thus cannot obtain a teacher's credentials and permanent employment.[37]

It is important to clarify that what is discussed here is simply a different form of study; in the end, students receive the same degree, and the degree requirements are identical. The opportunity to undergo this type of abbreviated teacher education has always existed in practice for subject teachers but has rarely been a formalized opportunity for other teacher degrees. The increased importance of this model is

[35] Guha, R., Hyler, M. E., and Darling-Hammond, L. (2016), *The Teacher Residency: An Innovative Model for Preparing Teachers* (Palo Alto, CA: Learning Policy Institute, 2016); see also the National Centre for Teacher Residencies, accessed July 29, 2021, https://nctresidencies.org/

[36] For example the schoolbased program at University College Dalarna "Arbetsintegrerad lärarutbildning", accessed July 29, 2021, https://www.du.se/sv/Utbildning/vara-utbildningar/undervisning/lararutbildning/arbetsintegrerad-lararutbildning/ and at Malmö University, Ny lärarutbildning med lön i Malmö, Malmö University, accessed July 29, 2021, https://mau.se/nyheter/ny-lararutbildning-med-lon-i-malmo/

[37] For example Linköping University, "Arbetsintegrerad lärarutbildning", Linköping University, accessed July 29, 2021, https://www.linkoping.se/naringsliv-och-arbete/jobba-hos-oss/nya-vagar-till-kompetensforsorjning/arbetsintegrerad-lararutbildning/

reflected by the fact that approximately one-third of subject teachers now earn their degrees through these programmes.[38] Like other teacher programmes, these supplementary courses are offered through different forms of distribution and with slightly different profiles. For example, a special model has a higher rate of study (125%) for people with a research degree (either a 2-year licentiate or a 4-year doctorate).[39] These students also receive an educational grant that serves as a salary during their studies. Special education provisions also exist for teachers with foreign degrees.[40]

Teach for Sweden is another example of the variety in the Swedish teacher education landscape, though it has more in common with other Swedish forms of teacher education than its international counterparts. Like other short programmes, it offers people who have already obtained subject knowledge supplementary teacher education. While the initiative is identical to other programmes in that it has the same degree requirements and formal education is provided in regular higher education institutions, it differs in other aspects. Students undergo a specific selection process before admission, and the programme has a strong focus on leadership. Students are only placed in schools in disadvantaged areas with socio-economic challenges and are employed throughout their studies.[41]

The demands of these programmes and what we know about the complexity of becoming a teacher raise the question of whether education provided in these varied forms can maintain not only the same level but also a high-quality level, given how they differ in student profile, time for instruction and traditional interaction between teachers and students. Those posing this question often assume that traditional campus programmes offer the highest quality, but it may be the case that interaction with and among students can be equivalent or even more frequent in online models than in traditional ones.[42] Paradoxically, these student teachers receive the lowest amount of teacher-led instruction in all of Swedish higher education, at an average of 8 h per week.[43]

In summary, teacher education in Sweden is a multifaceted system that is conducted in substantially varying forms and types of educational institutions, with fundamentally different approaches to professional practice and with diverse funding and study conditions for students. From a critical perspective, it is reasonable to

[38] Swedish Higher Education Authority, *Årsrapport 2018 för universitet och högskolor* (Stockholm, Swedish Higher Education Authority, 2018), p. 62.

[39] https://www.umu.se/utbildning/program/kompletterande-pedagogisk-utbildning-for-forskarutbildade/These students are granted an income of 25,000 SEK per month (approx. 2900USD) from the government. As with other incomes, recipient have to pay a tax on that (approx. 30%).

[40] Swedish Higher Education Authority, *Årsarpport 2019* (Stockholm: Swedish Higher Education Authority, 2020), pp. 113–116.

[41] Teach for Sweden, "Teach for Sweden gör den svenska solan bättre", accessed July 29, 2021, https://www.teachforsweden.se

[42] Cf. Norberg, A, (2017), From blended learning to learning onlife – ICTs, time and access in higher education, Umeå universitet.

[43] Instruction time varies between program as the government allocate resources differently according to an estimation of costs. Programs with focus on science and technology have the highest rate with an average of 14 h per week. The average for higher education is 11 h per week. Swedish Higher Education Authority, *Årsarpport 2019*, p. 42.

wonder about the possibility of maintaining equal levels of high quality in all aspects of the teacher education landscape. From another perspective, it is possible to interpret the situation as an expression of a process in which traditional forms of teacher education are under renegotiation to better meet current and future demands and the increased expectations of society and individuals.

4.2.3 Programme Funding and Funding for Studies in Teacher Education

In Sweden, higher education is free for students; no tuition fees are charged. The general rules that apply to higher education also apply to teacher education. Students are entitled to special loans through a publicly funded national programme. Sweden has offered such student loans in one form or another since 1919. The purpose of such loans has always been to prevent those born disadvantaged from being excluded from higher education. The modern and more general provision that makes a significant part of this support a subsidy rather than a loan has been in place since the 1960s.[44] Student loans and subsidies are intended to cover the costs of living and housing, textbooks and so on.[45] Students with student loans have the right, to a certain extent, to work while they study to earn additional income or obtain valuable experience that will improve their opportunities in the permanent labour market.

Students receive their loans in the form of monthly allowances during their studies, with regular checks of credits earned to ensure that each student is proceeding according to plan. If a student fails to make the required progress, the student loan will be withdrawn.[46] These loans are to be paid back over a 25-year period that starts after graduation. One-third of the amount of support consists of the subsidy, which does not need to be repaid, and the interest rate on the loan is very low (0.05% in 2021).[47] It has been suggested that a significant amount of the loan be forgiven for graduates who agree to teach in in rural areas, which face severe teachers recruitment challenges. However, no such model has yet been nationally approved.

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[44] Central Studiestödsnämnden, "Studiestödets och CSN:s historia", accessed July 29, 2021, Central Studiestödsnämnden, https://www.csn.se/om-csn/vart-uppdrag/studiestodets-och-csns-historia.html

[45] Central Studiestödsnämnden, "Studiemedel: Bidrag och studelån", accessed July 29, 2021, Central Studiestödsnämnden, https://www.csn.se/bidrag-och-lan/studiestod/studiemedel.html#Betala

[46] During the 2020–2021 pandemic, it was decided at the national level to increase opportunities for students to work without cutting the amount of student loans and subsidies, as students were needed in critical sectors like health care. It was also decided to adjust the credit requirement, as higher education itself had to adapt to the pandemic.

[47] Central Studiestödsnämnden, "Ränta för studielån och återkrav 2021", Central Studiestödsnämnden, accessed July 29, 2021, https://www.csn.se/om-csn/aktuellt/nyhetsflode/2020-11-26-ranta-for-studielan-och-aterkrav-2021.html

Student teachers in the current model for residency programmes who work as teachers during their internships receive a monthly salary in addition to what is provided as a loan. This form of integrated models with, for example, half-time work and half-time studies are fairly recent and not yet established as a national model. Rather, they have emerged as local initiatives, with only a very small proportion of the country's student teachers registered. However, this model may become more important due to the current severe teacher shortage because of their appeal to persons with other professional careers behind them.

Most of Sweden's higher education institutions are public. Since the 1990s, education has been financed using a per capita model combined with specified cost allowances for areas of study. In practice, these institutions operate with divided funding systems for research, education and capital needs. There are currently 16 defined educational areas such as the humanities and social sciences, artistic fields and teaching. All courses offered are locally assigned to one of the various areas; through this classification, the financial bases for the education are determined. The lowest funding level applies to the humanities and social sciences (approximately SEK 53,000 in total). Natural science and medicine receive a higher level of funding of approximately SEK 86,000 and SEK 145,000, respectively. Teacher education receives approximately SEK 80,000. However, not all studies in a teacher education programme receive this funding level; for example, 210 ECTS in a 5-year programme for secondary teaching comprise subject studies and could be in the humanities or social sciences, which receive the lowest funding. The higher level of funding for teacher education only applies to educational sciences. There is also specific funding for student teacher internships (SEK 110,000), a percentage of which is used to compensate school districts for their support and supervision. Overall, one has to consider that the funding model is complicated and offers widely different conditions for different study programmes.

It is also worth noting that the per capita funding of education is divided into two parts. One part is obtained for a student who is registered for the programme in a given year, and the other part is based on how many ECTS that student earned during the year. In practice, this means that higher education institutions are encouraged to accept as many students as possible and that revenues decline in the event of decreased throughput. The model has also been criticized for providing incentives for lower quality by rewarding throughput. A strong programme rests on high quality-teaching, of which funding levels are an important precondition, but it also rests on extensive collaboration with schools and on research.

4.2.4 Different Conditions in Different Institutions

The model for how higher education is funded initially appears to grant equal conditions for all institutions, but that is not at always the case in reality. A central aspect of high-quality education in academia is a strong connection between education and research. Consequently, Sweden's Higher Education Act requires institutions to

maintain a "close connection between research and education".[48] Research is, as noted above, financed separately from how pedagogical activities and does not use an equality-based model. Universities receive more extensive research funding than university colleges, older universities receive more funding than newer ones, institutions with particular profiles receives more funding than other and so on; taken together, this means that the same category of educational programme (e.g., a programme for primary school teachers) has different prerequisites that depend on the institution offering the programme. The model for distribution of research funding is primarily historical but does consider some quality indicators on the margins.[49]

Teacher education is provided within different institutional categories, and since they receive very different proportions of research funding, the conditions for students vary greatly. Naturally, other conditions are also important, but this is arguably more than a marginal example of different prerequisites for these programmes; in fact, it is a crucial factor in the quality of higher education programmes in general. Table 4.2 aims to indicate how varied the local possibilities are to anchor educational programs in research are by presenting an overview of some examples of differences in this respect between an old university, a university inaugurated 1965, one designated a university in 1999 and a university college.

The pattern is clear. Institutions of the same category as University College Dalarna has significantly less resources for providing its students with the type of

Table 4.2 Funding for education (based on a per capita model) and funding for research in four Swedish higher education institutions (2020)

Institution (category)	Funding for education[a] (million SEK)	Funding for research[b] (million SEK)	Quota for research/ education
Uppsala University (large, Sweden's oldest institution)	1850	2259	1.22
Umeå University (large, inaugurated 1965)	1463	1187	0.81
Karlstad University (small, university accreditation since 1999)	696	261	0.38
University College Dalarna (small, inaugurated 1977)[c]	446	88	0.20

Source: *Governmental proposition* 2021/22:1, expense area 16, Table 6.3, p. 141

[a]Basic and advanced levels

[b]including PhD education

[c]The importance of the inaugural year varies. It has some meaning for funding, but these years can be misleading in terms of history. For example, the higher education institutions in Umeå, Karlstad and Falun (Dalarna) have a prehistory, primarily as sites for teacher education, but also for other sorts of vocational education such as mining and medicine

[48] Higher Education Act 1 chapter, 3§.

[49] SOU 2019: 6, *En långsiktig, samordnad och dialogbaserad styrning av högskolan* (Stockholm: Statens Offentliga Utredningar), p. 93.

enriching instruction that is based on an intense connection between research and learning opportunities that draws upon a deliberately programmatic design that gives the student extensive experiences of and insights into knowledge production and use. This is particularly important as teacher education programmes in general are proportionally larger in these type of institutions.

It must be noted that the Swedish higher education system has no mechanism to control the crucial link between research and education other than the general regulations stipulated in in the Higher Education Act.[50] As a consequence, there is a wide variety between institutions in how this is realized, and it also varies within institutions, depending on how they prioritize academic vs. professional in their funding models for research. In fact, there are no systematic reviews of how the size of research funding is linked to the teacher education field and to what degree teacher programmes are located within active research environments. These difficulties relate to the fact that teacher education and aligned educational sciences in Swedish higher education institutions usually is not located within separate organizational units. Therefore, this type of research is conducted within a variety of academic units and contexts.[51] A recent governmental inquiry also confirmed that there is a lack of information regarding investments in educational science research and that it is very difficult to establish such information.[52] But let's look at some indications.

A national evaluation of the teacher education programmes in 2005 found "established research related to teacher education" in four universities and "relatively extensive resources" for third cycle studies related to teacher education in an additional four institutions.[53] The review evaluated 25 institutions. The 2008 evaluation found that the situation had improved; for example, research grants in this area at Uppsala University increased by over 60% compared with 2004. At the same time, the grant comprised only 0.65% of that university's total research resources.[54] One study found that in two relatively large universities (institutions with extensive research funding), teacher education accounted for 8–10% of all degrees offered in 2012–2014, while that area was estimated to receive about 3.5% of research

[50] 1 Ch. 3§ (SFS 1992: 1434).

[51] Some institutions, like University College Kristianstad have though an organizational setting in which teacher education is organized separately (Faculty of Education), along the same patterns as for example disciplinary areas like economy and science. It might be noted that it appears to be the case that this institution also allocated research funds to educational science more generously than other institutions. *Finansiering av utbildningsvetenskaplig forskning* (Swedish Research Council, Committee for Educational Sciences, 2021, p. 23).

[52] SOU 2018:19, *Forska tillsammans – samverkan för lärande och förbättring.* Betänkande av. utredningen om praktiknära skolforskning i samverkan, Statens offentliga utredningar, Stockholm, p. 37. These observations is confirmed in the report *Finansiering av utbildningsvetenskaplig forskning,* (Swedish Research Council, Committee for Educational Sciences, 2021, pp. 18–19).

[53] Högskoleverket, *Utvärdering av den nya lärarutbildningen vid svenska universitet och högskolor, del 1: Reformuppföljning och kvalitetsbedömning* (Stockholm: Högskoleverket, 2005), pp. 19–20.

[54] Högskoleverket, *Uppföljande utvärdering av lärarutbildningen, rapport 2008: 8 R* (Stockholm: Högskoleverket, 2008), pp. 159–160.

resources, indicating that neither national, nor local distribution of research resources did not appear to take into account the need for teacher education to be conducted in highly research-oriented environments.[55]

In summary, the conditions for and quality of teacher education programme vary widely in Sweden's higher education system. However, there has been some governmental support of relevant research during the last decades.[56] While this is clearly an improvement, the effort began from a very low level, so it is hard to foresee a significant increase of equality in the conditions between teacher education and other academic areas or between teacher education at different institutions. This change must be understood also in the context of deteriorating organisational autonomy for the teacher education sphere within Swedish higher education institutions (see Sect. 4.2).

4.2.5 The Many Reforms

It is difficult to understand the current model for teacher education, its strengths and weaknesses and thus the debates about it without a historical context. The briefest examination of modern Swedish society will reveal that education and teacher education are almost always on the reform agenda. The most recent example is from 2018. The election that September became followed by a rare process before a new administration took power. Usually, a new government is in place within a week or two after an election, but this did not occur until the beginning of 2019. The key obstacles turned out to be a rather detailed agreement (in 73 bullet points) between the parties from the previous administration, which ran from 2014 to 2018, and two liberal parties.[57] The

[55] Åstrand, B. (2017) Swedish teacher education and issue of fragmentation. Conditions for the struggle over academic rigour and professional relevance, in, Hudson, B (ed.), *Overcoming Fragmentation in Teacher Education Policy and Practice*, Cambridge University Press, 2017, p. 126. C.f. *Finansiering av utbildningsvetenskaplig forskning* (Swedish Research Council, Committee for Educational Sciences, 2021) that concludes that the proportion of educational programs within institutions appear to not impact how local resources are allocated, and that this "most likely disadvantage educational science." (p. 23)

[56] This refers to (a) the establishment of the Education Scientific Committee within the Swedish Research Council (https://www.vr.se/sidfot/om-vetenskapsradet/amnesrad-rad-och-kommitteer/utbildningsvetenskapliga-kommitten.html), (b) the establishment of the Swedish Institute for Educational Research (https://www.skolfi.se), (c) an initiative for a novel infrastructure for school-based research conducted in collaboration between local teacher education organizations and municipalities (and private school owners) and their schools, initiated by four deans in teacher education that was approved by the government and now extended into a national model (http://www.ulfavtal.se/) and (d) a government programme launched in 2021 that provides resources for school teachers with third cycle degrees to conduct research. The question of research development in the teacher education area is a vital issue, but space prevents a deeper exploration here than these brief remarks.

[57] Swedish Social Democratic Party, "Utkast till sakpolitisk överenskommelse mellan Socialdemokraterna, Centerpartiet, Liberalerna och Miljöpartiet de gröna", Swedish Social Democratic Party, accessed 29 July 2021, https://www.socialdemokraterna.se/download/18.1f

agreement contained a number of reforms in the educational field, including reform of teacher education. A ministerial report was published and sent out for a public hearing in early 2021. We do not yet know where this process will end but, in accordance with the agreement, it will most likely result in the fourth teacher education reform in just over three decades and in the seventh reform that fundamentally changes Sweden's national framework for teacher education since World War Two (Table 4.3).

Since the Second World War, two major comprehensive university reforms have also profoundly impacted teacher education. The first was implemented at the end

Table 4.3 Teacher education (TE) reforms and higher education (HE) reforms with direct relevance to teacher education programmes

Year	General HE reform	Particular TE reform	Content (name)
1956/1968		X	Establishment of higher teacher seminars from 1956 and termination of common schools seminars in 1968
1977	X		Academization of most professional preparation, including the merger of all teacher education institutions into HE (H77)
1988		X	Launch of new national programmes for teacher preparation for comprehensive schools (grades 1–9)
2001		X	Launch of new national programmes for teacher education for all schooling through grade 12, including preschool (LUK)
2007	X		Implementation of the Bologna structure in Swedish HE (BP)
2011		X	Launch of new national TE programmes for all forms of schools
2022		X	Reforms addressing issues of teacher quality and teacher shortage: Introduction of a new type of directives for TE program. Mandated studies in cognitive science in the education core in all TE program. New orientations in programs for teaching in primary schools. (separate from what regulates other HE programs[a]) changed admission criteria for applicants with other HE degrees (easier entry). Launch of a 5 year experimentation with reduced degree requirements (from 90 to 60 ECTS) for studies at short program and experimentation with possibilities to award degree for primary teaching within the 60 ECTS program[b]

[a]i.e. the Higher Education Act and The Higher Education Ordinance. TE is still regulated within that legislation, but key aspects of content and form stipulates in the new directive. (SFS 2021:1335)
[b]These programs, "short program" (not necessarily a second cycle degree) are only open for applicants that already have obtained required amount of studies in the academic disciplines that relates to the school subjects that the applicant intend to teach

5c787116e356cdd25a4c/1573213453963/Januariavtalet.pdf?TSPD_101_R0=088d4528d9ab2000a16ed8476b91ec372caeb027929bfb79aab4834776761ba22578f003b3edf80408fa15c63c14300052635da8290300f50b32e8d06935866057d966520fd7e714fbeda08097774fcd48b15406689e-164543f05cafee1cbe8a

of the 1970s and came to have the greatest importance for teacher education by upgrading most post-secondary education to the university level. The old teacher seminars were discontinued, and the ongoing development and establishment of new, academically strong and research-based higher teacher education institutions designated for teacher education, that began in the 1950s was terminated in favour of a general merger of teacher education into existing higher education institutions. The basic motives for the reform were to increase accessibility, especially for students from families without academic traditions, to expand higher education programme offerings and to contribute to the democratization of higher education.[58] One consequence of this reform was that the more practice-based and skills-oriented teacher training based on the notion of professional training akin to the apprentice model (and located in teacher seminars) lost ground. Another way to put it is that it was boosted by the closer contact with the academic teacher education tradition in the universities, which was based on the scientific study of learning.

Prior to this reform, these traditions had also been in dialogue with each other, but they were now supposed to exist within the frame of a single organization. Today's debates on teacher education issues are largely a continuing negotiation of the issues raised by this merger, which is now more than four decades in the past.[59] The reform of 2022 have not been announced as a reform, neither have it been prepared as a reform (which usually include a significant work by an governmental inquiry). It is only announced as a governmental initiative to raise quality of teacher education programs, establishing more attractive entry routes into teaching, raised entry requirements and improved governance.[60] The reform addresses heavily the problematic teacher shortage in Sweden but not much is said about how the reform reduces the required period of studies and how the new model for validation of prior studies in fact might reduce the requirements of academic qualification within the subjects that prospective teacher intend to teach.

Reforms aiming at countering teacher shortage more or less by default risk to negatively impact strategies for raised teacher quality. Swedish teacher education reform of 2022 appears to be a typical example of that. We have tough to take into account that the most challenging initiatives in that respect are conditioned within a

[58] Högskoleverket, *De första 20 åren: utvecklingen vid de mindre och medelstora högskolorna sedan 1977*, (Stockholm: Högskoleverket, 1998); C.f. Bertilsson, E. (2011), "Lärarutbildning", in Larsson, E. and Westberg, J. (eds) *Utbildningshistoria – en introduktion*, (Stockholm: Studentlitteratur, 2011), pp. 169–171.

[59] Hartman, S. (2005) *Det pedagogiska kulturarvet*, *Traditioner och idéer i svensk undervisningshistoria.* Natur & Kultur, pp. 77–78. The sheer frequency of these reforms has caused difficulties. The experience among teacher educators of being pushed into handling top-down reforms rather than refining local models and practice appears on the one hand to have caused frustration and fatigue; on the other, actors have searched for alternative approaches to improvement. For example, there has been collaboration between four Swedish institutions and the Stanford Teacher Education Program since 2012. (Åstrand, B. "Alternative Paths of Reform? Exemplary Programs, Critical Inquiry and Increased Professionalism" forthcoming).

[60] https://www.regeringen.se/pressmeddelanden/2021/12/starkt-kvalitet-i-lararutbildningarna-och-okade-mojligheter-for-akademiker-att-lasa-in-en-lararexamen/ (accessed 220518).

5 year period of experimentation. It might be the caste that this model will become permanent but it is of course also possible that it will be terminated within 5 years as the teacher shortage are diminishing according to predictions. It is though a rather remarkable move to launch such an experimentation. Sweden also have a significant shortage of physicians, but no voices is heard about alternative routes into medicine and shortening of programs to ease that problem. Probably we are witnessing a turning point in teacher education policy with the launch of the reform of 2022. Not only in these respects but also that sense that despite a decade of policy on increased autonomy for higher education institutions, this reform articulate need of and entail a more detailed governance of content in teacher education programs.[61]

4.2.6 Politics and Policy: The Relation Between Schools, Teacher Education and Educational Equity

The general political consensus around the introduction of the comprehensive school model was not strong and did consequently not last. The debate about the strengths and weaknesses of that model has naturally included questions about how teachers are educated; while that debate is too vast to fully analyse here, it has had a profound impact on teacher education reforms.

It is also noteworthy that the far-reaching decentralization and marketization of Swedish schools in the early 1990s led to teacher education becoming increasingly important for national equity. On December 8, 1989, a parliamentary decision transferred the responsibility for comprehensive schools from the national government to municipalities. On this occasion the Minister of Education and future Prime minister, Göran Persson, argued for the reform and highlighted, in response to the criticism that it would cause high levels of inequality, five factors that would guarantee educational equality and equity.[62] After only a few years, only two of those factors remained – the national curriculum and the national teacher education model. However, a few years after that, the curriculum was dramatically reduced in both volume and specificity and reinforced the prevailing decentralization trend by leaving greater space for principals and teachers to make decisions and take actions independently, which also increased the importance of teacher education for equality and equity in education.

As the above description makes clear, Swedish teacher education is now housed in higher education institutions, and academia operates within a profound sense of autonomy. These institutions, despite being publicly funded and theoretically answerable to government, are notoriously hard to direct, so it has proven difficult

[61] Outlined in *Ökad kvalitet i lärarutbildningen och fler lärare i skolan*, (Governmental PM, dnr U2021/00301, see for example p. 103) and implemented by the directive SFS 2021:1335.

[62] The government's proposition 1989/90:41. For the records from the debate, see Riksdagens protokoll 1989/90: 42 (http://www.riksdagen.se/sv/dokument-lagar/dokument/protokoll/riksdagens-protokoll-19899042_GD0942/html). The speach by the minister begins at page 49.

to create and implement these programmes in a manner that supports equality in Swedish schools, given the wide variety of conditions. A national evaluation of all teacher education programmes in 2005 concluded that the model chosen for teacher preparation had created high levels of programme variation in both content and form.[63] The reform of 2011 aimed to reduce that variation, but Swedish teacher education is still a varied landscape. This observation should be taken into account with the assessment that the school system, through decentralization and marketization, has evolved from standardized and uniform into a state of "programmatic variation" which adds to the complexity.[64]

4.2.7 Autonomous Higher Education Institutions Conducting Nationally Regulated Programmes: A Problematic Context?

Teacher education exists in the context of tension between institutional autonomy and national regulation.

Although each higher education institution has substantial autonomy on how to design, organize and operate academic programmes, the national Higher Education Ordinance regulates the degrees that they can award. General programmes like Bachelor of Arts or Master of Science are regulated in terms of quantitative requirements – how many ECTS a given degree entails – and by a core of nationally stipulated learning outcomes.[65] However, programmes leading to professional degrees, especially teacher education programmes, have an extensive set of national regulations on numerous aspects: content, form, length of studies, combination of subjects and learning outcomes.[66] The reform of 2022 takes this a step further by establishing a particular legislative regulation separate from The Higher Education Act and The Higher Education Ordinance, a move that diverge from the amplified governmental

[63] Högskoleverket, (2005) *Utvärdering* av den nya lärarutbildningen vid Svenska universitet och högskolor, part 1, pp. 89–128.

[64] "The consequence of educational decentralization and the model with private schools is not only growing differences between municipalities; it have also caused a situation in which individual schools within the same municipality become more and more varied in their culture, organization and operations. The development can be described as a process in which the principle of a uniformed schools system been replaced by a principle of programmatic variation." Rothstein, B, Tillit som grund för framgångsrika organisationer – skolan som exempel, in *Styra och leda med tillit – forskning och praktik*, SOU 2018: 38, p. 43.

[65] The ECTS is not formally applied in Swedish higher education, but the national system for credit points is equivalent to the European model; 1 year of full-time studies equals 60 ECTS.

[66] All details are to be found in an addendum to Higher Education Ordinance, the National System of Qualification. (Swedish Council for Higher Education, "Higher Education Ordinance, National System of Qualification, Annex 2", updated May 28, 2021, https://www.uhr.se/en/start/laws-and-regulations/Laws-and-regulations/The-Higher-Education-Ordinance/Annex-2/)

discourse during last years on the importance of autonomy for higher education institutions.[67]

These national regulations are more extensive for teacher education programmes than other programmes. They also stipulate how many weeks should be spent on internships in schools and that 1 year (60 ECTS) is dedicated to "core education subjects" and their content. This detailed national regulation of teacher preparation has to be understood in the context of teacher education remaining one of the few traditional instruments for the national government to direct school development in a very decentralized school model.

In principle, national regulations are not supposed to specify the content of study programmes, with the exceptions described above. Content is to be locally determined, using plans established in each educational institution and each programme, and in their associated curricula. However, content and to some degree forms of implementation are regulated through the learning objectives associated with each degree. These objectives are divided into three categories, as shown with examples in Table 4.4.

In one sense, teacher education programmes are regulated like other programmes; and in theory, local institutions can add objectives, but that rarely occurs in teacher education. What stands out compared to other programmes are the more extensive quantitative and qualitative requirements for obtaining a degree, which may help explain why only some institutions have developed local objectives. The aspect that most clearly distinguishes the directive for teacher education from other programmes involves the very specific content directives regarding the year of study in core education subjects, which the regulations stipulate must include the following:

- history of the school system, its organization and conditions, along with core educational values including fundamental democratic values and human rights
- syllabus theory and didactics
- theory of knowledge and research methodology
- interdisciplinary studies in development and learning, including studies in cognitive science, and special needs education
- social relationships, conflict management and leadership
- assessment and grading, and
- evaluation and development processes.[68]

This regulation does not mean that there have to be seven different courses or that this content should be grouped into a general area of studies taken by all student teachers in the same manner. On the contrary, it is to be read as a specification of content; it is also made clear that these studies should be adapted to future

[67] SFS 2021:1335.

[68] Offical translation availbe at https://www.uhr.se/en/start/laws-and-regulations/Laws-and-regulations/The-Higher-Education-Ordinance/Annex-2/. (accessed 220518). However, not updated in relation to the teacher education reform of 2022.

Table 4.4 Categories of learning objectives with examples

Category	Number of goals[a]	Illustrative examples
Knowledge and understanding	7	For the subject teacher's degree (upper secondary education), the student should: Demonstrate the subject knowledge required for professional practice, including both broad knowledge of the field and a considerable degree of specialized knowledge in certain areas of the field, along with specialized insight into current research and development work. Demonstrate the knowledge of didactics and subject didactics including the methodology required for teaching and learning in the specialization or specializations for which the qualification is awarded, for professional practice in other respects and show awareness of adult learning.
Competence and skills	14	For the subject teacher's degree (upper secondary education), the student should: Demonstrate the capacity to plan, implement, evaluate and develop teaching and educational processes individually and together with others in order to stimulate the learning and development of every pupil in the best way possible.
Judgement and approach	4	For the subject teacher's degree (upper secondary education), the student should: Demonstrate the capacity to make assessments in educational processes on the basis of relevant scientific, social and ethical aspects with particular respect for human rights, especially children's rights according to the convention on the rights of the child and sustainable development.

Source: Higher Education Ordinance, Appendix 2 (Degree of Master of Arts/Science in Secondary/Upper Secondary Education)

[a]Each example relates to education for subject teachers (with a focus on upper secondary school); however, the differences among the programmes are minor in this regard

professional practice.[69] At the same time, the directives are vague enough that it is possible to interpret them as implying that these studies should be different from others and thus specifically intended for teachers. However, national teacher education policy have increasingly become detailed in its governance. The requirement launched in 2022 (mentioned above) that all programs should comprise studies in cognitive science is a recent example of that. The government has also announced their intention to establish a national model for monitoring the exact number of hours of instruction in teacher education programs, a rather remarkable example of detailed directives.[70]

Other examples of the more explicit national governance of these programmes are the detailed regulations regarding which subjects can be combined into a

[69] The directive is that studies in this area "should align" with the professional practice for which the programme prepares the student.

[70] *Ökad kvalitet i lärarutbildningen och fler lärare i skolan*, (Governmental PM, dnr U2021/00301, pp. 117–119).

degree.[71] This is a striking contrast to the prior model in which it was up to each student to choose school subjects. As there has not been extensive debate on this change, it might be perceived as minor, but it is striking from the perspective of educating professionals that future members of the teaching profession are not granted this right to plan their careers. A last example involves grading. Generally, each institution decide on a grading system for its programmes, but that freedom is restricted for teacher education programmes.[72] This trajectory continues in a ministerial report in early 2021 that outlines proposals for future reforms of teacher education.[73] The articulated intention of the document is to address issues of teacher quality and the teacher shortage; despite the fact that institutional autonomy is emphasized, the document proposes detailed national regulation of content, among other areas, about which more detail appears below.

These examples show how national governance does not really accord with institutional self-perceptions of autonomy or with the national government's articulated but partly ostensible support of the idea of autonomous academic institutions. The rhetoric on institutional autonomy that has paradoxically grown in during recent years in the form of national higher education reforms signalling increased autonomy.[74] Teacher education is thus struggling to some extent with its localization in academia. Put differently and perhaps more accurately, the organs of the national government and academic institutions are all struggling with how to handle teacher education as both a professional and an academic programme.[75]

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[71] This have been the case for long but it became amplified with the reform 2011.

[72] Higher Education Ordinance, 6 chapter, 18§.

[73] Government Offices of Sweden, *Ökad kvalitet i lärarutbildningen och fler lärare i skolan*, accessed July 29, 2021, https://www.regeringen.se/rattsliga-dokument/departementsserien-och-promemorior/2021/01/okad-kvalitet-i-lararutbildningen-och-fler-larare-i-skolan/?TSPD_101_R0=088d4528d9ab200039488e721ae8de04b78fe5bf4b0921fd690f51bc8acd642c271b7a2e549cd39308b980ec73143000054b13512ced96ec0d3c9aa5bf63ce26c429c48a813d6aedb6805b65c3e82f4c0b3201907c0068eb1a66bb1a2abfcf2a

[74] The most detailed articulation in this respect was the Swedish Higher Education Institution Autonomy Inquiry; in 2008, it delivered a final report that was followed by a government proposition to the parliament on increased freedom for these institutions. Government Offices of Sweden, "Självständiga lärosäten", updated April 2, 2015, https://www.regeringen.se/rattsliga-dokument/statens-offentliga-utredningar/2008/12/sou-2008104/?TSPD_101_R0=088d4528d9ab200076c3bccc32e48c80b1fea817e2369128588e876f3bcfeee9ed45873ef95e130108e-aff7ea01430007c8ff867caa484a4934db646d386600b538bb48722da16fcc3a5bf25b8881a6f-ba50186357de0a283aad55c1b06b540d

[75] The perspective presented here is governance, but this struggle entails other aspects, especially how programmes should handle education regarding values and democracy. See, for example, Åstrand, B. (2014), Conflicting Ideas on Democracy and Values Education in Swedish Teacher Education, in Niemi, H., Multisilta, J, and Löfström, E. (eds), *Crossing Boundaries for Learning – through Technology and Human Efforts*, (Helsinki: CICERO Learning Network, Helsinki University), pp. 223–252 and Åstrand, B. (2015), Conceptual Understandings of Democracy and Values as Aspects of Teacher Quality: The Case of Teacher Education in Sweden, in *International Perspectives on Education and Society*, Vol. 27: Promoting and Sustaining a Quality Teacher Workforce, (Emerald Group Publishing), pp. 385–412. Furthermore, the national implementation

4.3 Present-Day Challenges: Aspects of Change and Continuity in Swedish Teacher Education

Before looking into todays challenges, let's take a look at some problem areas of a general and profound nature, less colored by contemporary culture and politics.

4.3.1 Critique and Critical Notions: How Can We Understand the Current Situation?

4.3.1.1 A Picture of the Criticism

Teacher education is a frequently debated topic. Over the last decade, the Swedish phrase that translates to "teacher education" has appeared in daily newspapers more than a thousand times annually, which indicates indicating not only the level of debate but also its persistent nature.[76] The criticisms of teacher education usually involve the following aspects:

- The quality is low, as is the throughput.
- There is a lack of balance between theory and practice.
- The components of programmes do not align.
- There is an insufficient and focus on the practice of teaching that appears too late in the programmes.
- There is too little focus on classroom management and the teacher's role as leader and inspirer.
- Programmes are unable to develop future teachers' ability to individualize their teaching to meet their students' needs.
- Programmes are reluctant to prepare students for parental cooperation and other tasks outside the classroom.
- Teacher education programmes are isolated from other academic programmes, professions and potentially enriching environments.
- Institutions fail to identify students that are ill suited for the teaching profession and do not force such students to leave the programme.
- The rules that govern how students combine different subjects in their degrees are dysfunctional.
- The recognition and validation of other studies adopt too narrow a view, leading to bottlenecks in terms of entering the profession).

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of the Bologna Process has had a significant impact on these programmes and our understanding of them.

[76] According to the Mediearkivet, database, which was checked on April 16, 2021, for the 2010–2020 period.

The continuity in these critiques is nothing short of remarkable. The Swedish government assigned in 1946 a school commission with a driving ambition to reform education in Sweden; its members soon realized that this effort also required reforming teacher preparation and studied what was wrong with such programmes at that time. The above is a summary of criticisms that appeared in their work in the 1940s, but these themes can also be found in today's debate.[77]

Not only is there a consistency in this criticism, there is also a stunning continuity in the proposed solutions to educational shortcomings. When it comes to teachers, there has to be improvement in "recruitment and the possibility of better selection, better substantive education in teacher training institutions, on-the-job training of younger teachers by more experienced ones"; of course, there has to be a raise in pay and an increase in status and "prestige of the teaching profession". We discuss these same propositions today and, although they are put on the table as new, they have a long history in Sweden and elsewhere. The quotes in this paragraph are from an influential report that appeared after the Sputnik crisis in the late 1950s in the United States, but they are still voiced today in the Swedish debate.[78]

It is striking to consider how many times questions regarding teacher education have been inquired since the beginning of the post-war redesign of the educational system in Sweden and how many reforms have taken place, but the same criticism recurs again and again, as if we are marching in circles and revisiting eternal problems and dilemmas.[79] If there were simple solutions to educational problems, this would not be happening. But because the challenges in that field are more close to dilemmas than readily solvable problems, they persist because they "are messy, complicated, and conflict-filled situations that require undesirable choices between competing, highly prized values that cannot be simultaneously of fully satisfied".[80] Much of the criticism depicts an endeavour that is standing still rather than moving forward, but at the same time teachers and principals testify about change, change and more change. A well-informed mind might be able to paint a more nuanced picture by describing how these dilemmas could be balanced, rather than "solved", which simply is not likely to happen because so many educational issues are about human differences, relationships, and contextual factors.

[77] Statens Offentliga Utredningar, SOU 1948:27, pp. 361–376.

[78] Bruner, J. S. (1960), *The Process of Education* (Cambridge, MA: Harvard University Press, 1960), p. 89.

[79] Cf. J Schneider, J. (2018) "Marching Forward, Marching in Circles: A History of Problems and Dilemmas in Teacher Preparation", *Journal of Teacher Education* 69, no. 4, pp. 330–340.

[80] Cuban, L. (2001), *How Can I Fix It? Finding Solutions and Managing Dilemmas: An Educator's Road Map* (New York: Teachers College Press), p. 10, quoted in Lit, I. W. and Lotan, R. (2013), "A Balancing Act: Dilemmas of Implementing a High-Stakes Performance Assessment, *The New Educator* 9, no. 1, pp. 54–76.

4.3.1.2 Ambitions and Conditions for Realization

We have seen above the high level of national reform efforts in Swedish teacher education, and the recurrent criticisms may lead to the conclusion that we are dealing with a problem without solutions. However, it may be the case that reforms have focused on problem solving when it would have been more appropriate to devise strategies that focus on dilemmas and how to balance their competing perspectives. Why? Because teacher education as an endeavour exists amid other activities and their main priorities. This is a consequence of the fact that a limited understanding sees teacher education as programmes preparing individuals for a certain task and of no value in itself; in other words, its only value is related to its importance for the education of others.[81] At the heart of designing teacher education programmes, there is thus a conflict between prioritizing what is best for schools and their pupils and other priorities. The situation in schools, societal and individual educational ambitions and the like sets the primary frame for what are usually perceived as problems in teacher education, but how ambitions will be realized depends on the priorities of higher education institutions and their school districts partners.

The very mission of schools contains seeds of some of the challenges that teacher education programmes have faced. What should be the core elements of educating children and youth? Subject knowledge and skills? Or is education about something more, something that also includes personal development, identities, socialization and acquisition of democratic values? And what about the forms for instruction – should there be one-way transmission of information, student-centred dialogue, problem-based inquiries, or what?

Frequently, the discussion becomes a tug-of-war between poles that can clash with the mission of education and the foundational insight that systematic acquisition of knowledge and skills only rarely occurs without a broader development of the individual, as we all change in relation to what we learn. Put differently, individual development in this respect is largely about internalizing knowledge and mastering capabilities, and this acquisition process relates to values, understanding life, society, identity and what it means to be a human in this world.[82]

Most teachers have found that teaching involves both explaining and describing phenomena and consciously shaping representations and processes to suit the learner, on the one hand, and motivating and interesting learners so that they not only becomes open and receptive but actually internalize knowledge into personal "knowing" and form insights in a meaningful manner, so that knowledge is not only accessible but "lives" in people's consciousness and becomes an integral part of their personal identity and how they perceive the world, and by that becomes a resource for agency and action.

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[81] Teacher education in a wider sense that incorporates, for example, educational science research of course has independent value.

[82] Cf. Faure, E., Herrera,F., Kaddoura, A-R., Lopes, H., Petrovsky, A. V., Rahmena, M., and Champion Ward, F. (1962), *Learning to Be: The World of Education Today and Tomorrow* (Paris: UNESCO), and Marton, F., Dahlgren, L-O., Svensson, L., and Säljö, R. (1977), *Inlärning och omvärldsuppfattning – en bok om den studerande människan* (Stockholm: AWE/GEBERS).

These multiple ambitions define schools as complex undertakings that face major challenges that are likely to be even greater for those who seek to educate teachers. On one hand, the challenges involve general conditions for school education as such and partly the cross-border nature of the teaching profession itself. The above description of the purpose of school education indicates that it has several functions. It should help qualify individuals for professional life, but it must also lay the foundations for their active lives as citizens and must in addition also contribute to the socialization of individuals so that they can work and live together and be able to develop a democratic society. Furthermore, education should offer all students an opportunity to develop their personality and understand themselves, enabling them to nurture their dreams and handle their lives accordingly.[83] Finally, as Aristotle argued, the aim of the constitution, the shared effort to create a life together, is happiness; education is the central activity in that effort as it turns human beings into citizens.[84]

As challenging as education is in itself, it occurs in different contexts and against an unknown future, which is a challenge of enormous magnitude. Linda Darling-Hammond describes it well: "Thus, the new mission of schools is to prepare students to work in jobs that do not exist, to create ideas and solutions for products and problems that have not yet been identified, using technologies that have not yet been invented".[85] It is no surprise that there are so many understandings of education and thus what is most essential in teacher education, as the different ambitions stretch from limited to daunting, from individual to collective and from reproducing what is known to transformative abilities oriented towards an unknown and unknowable future. But what do these debates reflect?

4.3.1.3 The Illusion of Simplicity

Educating students for an unfamiliar tomorrow is obviously difficult, and for those who will educate schoolteachers, even more challenges are added. In *The Trouble with Ed Schools*, David Labaree notes two particular difficulties in American teacher education. The first is that "teaching is an enormously difficult job that looks easy".[86] One consequence of the fact that teaching, to an untrained eye, may look simple in

[83] C.f. Biesta, G. J. J. & Stengel, B. S. (2016), Thinking Philosophically About Teaching, in Gitomer, D. H. & Bell, C. A, (eds), *Handbook of Research On Teaching,* Fifth edition, American Educational Research Association, pp. 31–32.

[84] Aristotle, *The Politics,* VII: xiii-xv.

[85] Darling-Hammond, L. (2010), *The Flat World and Education: How America's Commitment to Equity Will Determine Our Future* (New York: Teachers College Press, 2010), p. 2.

[86] Labaree, D. F. (2004), *The Trouble with Ed Schools* (New Haven: Yale University Press, 2004), p. 39. Cf. Goldstein, D. (2015). *The teacher wars – a history of America's most embattled profession.* Anchor Books. In her acclaimed book, this American journalist describes a teacher's teaching in a preschool class as follows: "Watching a great teacher at work can feel like watching a magic show" (p. 245). Later during her visit she realizes that that what she witnessed was an rather direct application of some particular research findings.

its execution is that those responsible for crafting education policy have likely underestimated the need for firm structures that advance teachers' instructional abilities; another is an underdeveloped professional language and an insufficient professional knowledge base.

The lack of support for advancing teaching capabilities is easily identifiable from a historical perspective, not the least from the fact that society has periodically expanded school education, whether from a 6-year mandatory model into a 9-years model or otherwise, without ensuring that when these measures are implemented, well-educated teachers are on hand to fulfil the lofty ambitions of policy. Another example is the common absence of any systematic initiative for teachers' career-long development.[87] Yet another is the prevalence of the extensive use of inadequately educated teacher substitutes, in stark contrast to the practices in comparable professions of direct relevance to the general public and regulated by the government.

The second difficulty that Labaree discusses is not about the seemingly simplistic nature of teaching but its complexity, its high degree of difficulty: "The general rule of teaching is that general rules do not help very much".[88] Early efforts in Sweden to build an academic foundation for the professional practice tended to simplify educational and psychological reasoning, in stark contrast to the teaching experience. In addition, and as a consequence of tendencies towards the trivialization of professional tasks, many efforts were invested in finding the "one" method for instruction rather than enhancing teachers' competence to autonomously make decisions about using a variety of instructional strategies and models based on what the content, students and context require, in essence, this development signals a tension between professionalization and de-professionalization. On a general level, it took until the 1990s before more subject-specific research on teaching and learning, mirroring the pedagogical content knowledge approach that emerged in United States, become a more widely used research orientation in Sweden.

4.3.1.4 General Methods but Teaching Is About Specific Activities, Individual Students and Teachers

The dilemma regarding aspects of general and specific orientation of teachers professional knowledge has several dimensions as it involves issues regarding variation in content, subjects, school forms and the like, on the one hand, and human differences on the other. Students and teachers are individuals with shifting priorities, capacities, approaches and motivations. The challenge is even more daunting as the standard procedure in education is collective, and these types of differences can cause difficult dynamics in interaction, exchange and receptiveness.

[87] Recent years indicate though a growing emphasis on teachers career-long learning, see for example the report by European Commission, *Supporting teacher and school leaders careers. A policy guide*, Education and Training, Luxenbourg, 2020. C.f. SOU 2018:17.

[88] Labaree, D. F. (2004), *The Trouble with Ed Schools* (New Haven: Yale University Press, p. 98).

There has historically been a tension in teacher education between whether a focus on general pedagogical studies or more specific ones are preferable. These positions highly oversimplify the foundational question about the knowledge and competence needed to be capable of systematically helping another person to acquire certain insights and capabilities. As touched on above, both content and humans vary, which shapes opportunities for teaching and learning, a long-established mainstream observation in educational research.[89] However, depending on circumstances, like for example a gap between what a person knows and the knowledge that the same person is expected to acquire, both general and specific strategies might be applicable. It could also be the case that a specific approach might be more useful in designing an instructional activity but less so for analysing the outcome of a sequence of instruction. The way forward for teacher education in this respect appears to be about deepening insights into the different variations and their relation to certain aspects of functionality rather than deciding what is "right" or "wrong"; those insights must be accompanied by attention to the fact that teachers must be allowed to act according to general insights in diverse patterns and thus be deeply anchored in themselves and their personality.[90]

In a study of what teachers really do when they teach it is described that:

- "They portray curriculum content in a way that renders it comprehensible to naive minds,
- for students who are not necessarily interested in learning,
- whose grasp of the content is not readily visible to the teacher,
- and who are restless and easily distracted;
- in a way that satisfies the teachers' personal needs."[91]

What is added here is that on top of the student dimensions of instructional challenges, there is also a monumental challenge faced by a teacher educator – to help all prospective teachers find their way to teach, teaching must not only be appropriate to every situation as to content and learner but also in harmony with the teacher's personality. The rationale is not only to avoid too much discrepancy between what the teacher says and does and what he or she "is" for the students, but also and above all to maximize synergy, where teachers' actions, being and attitude support the totality of ambitions, societal and individual, that characterize the school as an institution.

[89] Cf. Kansanen, P. and Meri, M. "Didactic Relation in the Teaching-Studying-Learning Process", working paper, 1999, accessed July 29, 2021, http://perttikansanen.fi/wp/wp-content/uploads/2014/11/Kansanen_Meri.pdf

[90] This is not to say that teaching is a personal activity that cannot be strengthened by insights developed systematically through research. On the contrary, what is pointed to here is that general insights will usually to some extent have to be transformed into personal way of teaching that relate to the teacher's personality and self-perception to be perceived as authentic.

[91] Kennedy, M, Parsing the Practice of Teaching, *Journal of Teacher Education,* 2016, Vol. 67 (1) p. 13.

This kind of challenging totality that every teacher has to shoulder, this holistic notion of teaching and its importance for successful teaching too often appear missing from the picture, perhaps because it is a daunting challenge and a perspective that can be difficult to digest. However, it may be the case that this phenomenon relates to the level of difficulty in the sense that it has hampered research and consequently the development of a professional language, despite the fact that its importance is widely accepted among students, parents, teachers and principals. Educating teachers is a profound challenge in itself, and any aspiration to educate teachers must address the following foundational questions:

- What should be the objectives of the programmes?
- Who can be educated into teaching and who should become a teacher?
- What should teachers study?
- When should the various content be studied and in what order?
- Who could and should educate new teachers?
- Where should teachers be educated? In what settings and under what circumstances?
- How should the programmes interact and collaborate with schools and the profession?[92]

Fundamentally, it is about having a well-developed answer to the question of what characterizes the most favourable situation for a person to acquire the knowledge and competencies needed by a successful teacher. This leads to another set of questions that complements the preceding list:

- What kind of experiences do children need to grow and learn and develop the confidence and competence they need to succeed in life?
- What kind of knowledge do teachers need to facilitate these experiences for children and youth?
- What kinds of experiences must teachers have to develop these kinds of knowledge?[93]

4.3.1.5 Teaching as an Epistemological Challenge

The situation is a bit paradoxical. On the one hand, reflecting on three central aspects introduced above, it appears not to be particularly difficult to establish and operate a teacher education programme. On the other, historical experience and the previously outlined difficulties lead to the opposite conclusion. It appears as if the endeavour to educate teachers branches into a series of difficult challenges for the

[92] Cf. Cochran-Smith, M. and Zeichner, K. M. (eds), *Studying Teacher Education. The Report of the AERA Panel on Research and Teacher Education*, American Educational Research Association, 2005.

[93] Darling-Hammond, L. and Bransford, J. (eds.), *Preparing Teachers for a Changing World: What Teachers Should Learn and Be Able to Do,* (San Francisco: Jossey-Bass, 2005).

various actors involved. To achieve success at the system level, it appears necessary that all challenges be met insightfully and with explicit and strong ambitions. The following points appear to be the crucial challenges:

- teacher education as a societal task
- teacher education as a collaborative task for the school system and for individual schools
- teacher education as a professional task for higher education institutions
- teacher education as a task for particular organizations in these institutions, each with its own legacy
- teacher education as task for individual teacher educators
- teacher education as a task for the teaching profession and individual schoolteachers
- teacher education as a study programme for prospective teachers.

Each bullet point translates into an extensive field of sub-questions, many of which have been discussed at length in the literature. But in addition to these points and those above, there is a perspective on the body of professional knowledge and competence that appears to have been at least partly overlooked. If we can conclude that content, context and people all vary, then we can understand something about the profound challenges teachers face in their daily work. However, we have to expand this perspective as the enactment of teaching also occurs at the intersection between epistemology and the foundational purposes of education.

A brief discussion might depart from Aristotle and his epistemological distinctions of "qualities through which the mind achieves truth" that translates into capacities like "art or technical skill, scientific knowledge, prudence, wisdom and intelligence".[94] In a more simplified version in the educational literature, his notions boil down distinctions between to "know that" (*episteme*), to "know how" (*techne*) and to "know why" (*phronesis*), but we need to add dimensions that Aristotle's wider view appears to have included or at least pointed towards. We can think about this in terms of *bildung*, (the capacities to take an overview, make connections, synthesize and identify implications, etc.), generative abilities, envisioning and creativity. A teacher needs to possess all these qualities and be simultaneously aware of them and the fact the task at hand in every moment in the classroom is to further all pupils' development in all these aspects while at the same time enact the main function of education: qualification for working life and for an active life in society, together with socialization and subjectification. This enactment also has to be purposeful for all students on every occasion, meaning that when responding to one student's question, the teacher has to consider how his or her response can be conducive to all students learning and towards developing all of Aristotle's qualities – and hence fulfilling the extensive purposes with education. This aspect of complexity is usually overlooked, which is surprising given that it is consequential for education in the form that exists in most societies today. A tentative explanation for why

[94] Aristotle, *The Nicomachean Ethics*, book VI (1139b).

these dimensions is seldom foregrounded is that the educational literature prioritizes reducing complexity to make these issues more accessible for prospective teachers.

This dimension adds extensively to the difficulty that inherently comes with designing teacher education programmes. Due to societal changes and the growing body of research, it appears necessary – on every occasion and in every context – to revisit and renegotiate the approach to these persistent questions about how best to educate teachers. The preceding discussion has suggested why this renegotiation is both necessary and difficult. Society is changing, as are the role of schools and teaching assignments, but the conditions for higher education itself are also changing. On an individual level, each person's choice of path in life is part of a larger shift between generations, values and understandings of the individual and society. The trajectory of how values in Sweden are changing is certainly not unique, but it is highly distinctive in its individualism and secularism.[95]

At bottom, the entire area of teacher education is a mix of challenges characterized by adaptation and change to meet new trends, the retention of both basic knowledge and competences necessary for teaching and the foundational academic approach and the ability to renew knowledge and insights through a scientific system based on an independent, creative and critical attitudes. The next section shifts the focus from these overarching questions to more concrete aspects of the challenges faced by contemporary Swedish teacher education.

4.3.2 Problems and Challenges in and for Today's Teacher Education Programmes

Criticisms of contemporary Swedish teacher education are best understood from the perspective of the perpetual need to revisit and renegotiate how society shoulders the task of educating teachers. As such, it ought to be a deliberation that involves practitioners, researchers, schools (not to forget pupils and their parents), higher education and politicians. However, the debate appears to have become, to a significant extent, a political battleground, with proposals emerging that reflect the political needs for visibility rather than a sincere desire to improve education. There is presently a discussion about the content of these programmes. In simplified terms, the criticism consists partly of a discussion about removing certain study areas in favour of, say, teaching about modern cognitive science, brain research and digital tools, and a discussion that seeks to highlight content in education that could help address current societal problems, such as sustainable development. The former can at least partly illustrate how content issues tends to become zero-sum games, and

[95] C.f. The map of cultures published by *World Value Survey* (https://www.iffs.se/world-values-survey/) and Inglehart, R. & Welzel, C, (2005), *Modernization, Cultural Change and Democracy – The Human Development Sequence,* Cambridge University Press, p. 87 and p. 220.

the latter how societal problems and dilemmas that are hard to solve or at least sufficiently rebalance can easily become educationalized.[96] In Sweden, teacher education since 1990 has been continuously evaluated by national government agencies We start this section by looking into these reports.

4.3.2.1 Quality in Terms of Programmes: Evaluations, Politics and Reforms

In recent years, all teacher education programmes have been evaluated by the Swedish Higher Education Authority.[97] Outcomes are either approved, indicating they are of high quality, or failed. In the latter case, there is a 1-year process for improvement that involves submitting a revised report and follow-up processes. If the second evaluation also indicates insufficient quality, the programme is terminated.[98] Recent findings are as follows:

- Of 19 preschool teacher education programmes, 11 were approved.[99]
- Of 48 primary school teacher education programmes, 24 were approved.[100]
- Of 102 secondary teacher education (subject-specific) programmes, 58 were approved.[101]
- Of 10 vocational teacher education programmes, 4 were approved.[102]

The criticism of a programme can vary, along with the evaluation methods applied and the context in which the review takes place. Swedish teacher education programmes had prior to this last round been evaluated 2005 and 2008; in addition, in 2010 all institutions were forced to undergo an accreditation process.[103] This section

[96] Tröhler, D. (2017), "Educationalization of Social Problems and the Educationalization of the Modern World", in Peters, A. M. (ed), *Encyclopedia of Educational Philosophy and Theory*, (Cham: Springer).

[97] *Universitetskanslersämbetet*, often abbreviated UKÄ.

[98] In such a case, the programme is no longer allowed to register new students. Those already registered in the programme that has been criticized in an evaluation have the right to finish their degrees. These reviews have three grades: excellent quality, high quality and failed quality. For a summary of the model, see UKÄ, Årsrapport 2019, p. 55.

[99] UKA decision nr 411-00457-17, April 15, 2019.

[100] UKA decisions nr 411-00458-17, 411-00459-17, 411-00460-17, April 15, 2019.

[101] UKA decisions nr 411-00374-18, 411-00375-18, 411-00376-18, 411-00377-18, February 2020. In this evaluation, only programmes in art, dance, sports and health, mathematics, music, social studies and Swedish were included.

[102] UKA decision nr 411-00529-19, February 23, 2021.

[103] The evaluations in 2005 and 2008 differed in their nature, as the earlier one had the formal character of a study of the implementation of the 2001 reform. The Swedish model of quality assurance does not include recurrent reaccreditation procedures, which is why it was unusual to require all higher education institutions offering teacher degrees to apply for accreditation in 2010. Formally, it was according to regulations, as a set of new professional degrees was established, but as teacher education degree had been awarded in most of these institutions for decades if not centuries, it was

begins with a review of those outcomes. In 2005, the evaluation included a follow-up of the 2001 reform.[104] Criticism was directed at that time at the quality of the programmes in terms of organization, teacher competence and the degree to which they were research-based. The clear impression was conveyed that the programmes were highly varied and thus failed to achieve equality. For example, some higher education institutions clearly had established research that related to their programmes, while others to a high degree lacked such support for their programmes and some institutions devoted significant resources to research, whereas others did not.[105]

It is not surprising that a reform featuring flexibility and freedom of choice could result in a situation in which students in parallel programmes at different institutions received highly varied educations and thus demonstrated highly varied competence as teachers in the end, which is a problem from a school-oriented equality perspective. Additionally, problems regarding progression were noted in most programmes and appeared to the evaluators as fragmented, which, in combination with unclear or minimal exit requirements, had a negative impact on the programmes.[106]

The evaluation results were widely circulated in the media, a process that was ignited by the minister in charge of higher education and research, the social democrat Leif Pagrotsky, who published a debate article under the heading "I do not accept the low demands on student teachers", in which he extensively criticized these programmes.[107] Soon after, similarly intense criticism came from the rest of the political spectrum. The municipality of Stockholm had long had a local politician heavily engaged in educational issues, Jan Björklund of the Liberal Party. His political energy was largely focused on frequent and extensive criticism of schooling and teacher education in Sweden.[108] Together with his party leadership, he soon published a debate article that not only articulated sharp criticism but also argued for discontinuing responsible institutions.

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still very much out of the ordinary. It should be noted that at roughly the same time as the national system was highly focused on teacher education, Sweden was first criticized by European authorities for its inferior quality assurance system and then lost its accreditation under ENQA in 2014. It was not until 2020 that Sweden reaccredited by ENQA.

[104] National Agency for Higher Education, a predecessor to today's agency, Universitetskanslersämbetet, (UKÄ).

[105] Högskoleverket, (2005), *Utvärdering av den nya lärarutbildningen*, *Del 1: Reformuppföljning och kvalitetsbedömning,* p. 20.

[106] Högskoleverket, (2005), *Utvärdering av den nya lärarutbildningen*, *Del 1: Reformuppföljning och kvalitetsbedömning*,pp. 143–144.

[107] In Sweden's largest newspaper, *Dagens Nyheter*, on 19 March 2005: https://www.dn.se/debatt/jag-accepterar-inte-de-laga-kraven-pa-lararstudenter/%20

[108] At the time, the party was called Folkpartiet liberalerna, with the direct translation "Peoples party – the liberals". However, in 2015 the name was changed to Liberalerna, which translates to "The Liberal Party".

The article put forward the necessity of making teacher education a responsibility of higher education generally rather than particular institutions.[109] A reform had already been implemented in the 1970s, so that approach was perceived by many educators to be based on either a misunderstanding or a conscious political strategy for visibility or other tactical priorities. However, as Sweden still had one institution that only educated teachers, the Stockholm Institute of Education, the argument was valid in that municipality, in contrast to the national situation. The intensity of the debate has to be understood in the light of increased political tensions between the social democratic government in place since 1994 and the growing aspirations of liberal-conservative opposition parties to win the elections in 2006, an ambition for which they formed an alliance in 2004. That alliance did win the 2006 elections, with Björklund soon becoming minister for education.[110]

Academic leaders in charge of teacher education aspired to give their view of the situation but were denied access to the same debate forum. They chose to purchase a full-page advertisement with the same layout as the debate forum to publish their response, which reveals the intensity of the debate. Their message was that a biased, unbalanced and unilateral debate risked "lowering the status and quality of teacher education".[111] It is difficult to avoid interpreting the intense debate as an expression of the politicization of the view on schools and thus teacher education, along with the tension between outside and inside perspectives.

In light of the shortcomings found in the evaluation, follow-up studies appeared in November 2006, which argued that one in four students who had pursued a teacher's degree should actually have failed.[112] The harshness of the debate was not in accordance with what the evaluation had proposed. Despite being profoundly

[109] Björklund, J. et al. (2005), "Lägg ner Lärarhögskolan och satsa på universiteten", *Dagens Nyheter*, March 20th 2005, https://www.dn.se/debatt/lagg-ned-lararhogskolan-och-satsa-pa-universiteten/

[110] The party chairman, Lars Leijonborg, became minister of higher education and research; Björklund was elected chair of the party in 2007.

[111] This advertisment is not possible to find at internet but is stored by author. However, news on this occasion is availble at for example:. https://sverigesradio.se/sida/artikel.aspx?programid=109&artikel=584465 and https://www.dn.se/nyheter/sverige/dn-annons-bransle-i-lararstrid/ The use of just this debate fora, "DN.debatt" is of particular impotance since it has for long been central for debates on education. See Wiklund, M. (2006), *Kunskapens fanbärare – den goda läraren som diskursiv konstruktion på en mediearena*, Örebro Studies in Education 17, Örebro University.

[112] These reports were *Examination med kvalitet, en undersökning av examinationsförfarandet vid några svenska högskolor*, (Högskoleverkets rapportserie 2006:45R), *Utbildning på vetenskaplig grund – röster från fältet*, (Högskoleverkets rapportserie 2006:46R), *Examensarbetet inom den nya lärarutbildningen,* (Högskoleverkets rapportserie 2006:47R), and *Högskolornas särskilda organ för lärarutbildning – deras ansvar och befogenheter* (Högskoleverkets rapportserie 2007:47R). The authors of these reports presented together with the chancellor for Swedish higher education and Director General of the Higher Education Authority, their findings in a debate article in Dagens Nyheter on November 28th 2006 under the heading "Every fourth teacher student should not have been awarded their degree". (https://www.dn.se/debatt/var-fjarde-examinerad-larare-borde-ha-blivit-underkand/). Half a year later, the government appointed the chancellor as inquiry chair for an investigation proposing a teacher eudcation reform.

critical, the evaluation did not propose any terminations of accreditation or anything that dramatic. Instead, a report for each institution was presented that offered transparent and balanced recommendations and advice. In addition, a series of special investigations was published that drew attention to weaknesses in the national framework for these programmes.[113]

In December 2006, the new government announced, again in a debate article, that it intended to discontinue the Stockholm Institute of Education, that it was the government policy that higher education institutions that did not respond appropriately to the evaluation criticisms should lose their accreditation and that a government inquiry regarding a full reform of teacher education would be established.[114] In spring 2007, the two ministers from the Liberal Party at the Department for Education, again in a debate article, presented a major reform package of teacher programmes, and the national inquiry into a new teacher education model was announced in summer 2007.[115]

All in all, the process clearly revealed a high degree of political engagement in the issue, and the process did not follow the traditional dialogue-based model; instead, a series of decisions were made that signalled a strong determination to impose change from the top down. The inquiry that had led to the teacher education model that would now be discontinued had been conducted by a parliamentary committee.[116] The purpose of such an inquiry is usually to emphasize the importance of an issue and to reach a political agreement that includes most of the parties in parliament to secure long-term stability. When the new inquiry was launched, a radically different model was chosen, featuring a single chair, a secretariat and a group of experts.[117] In this model, the experts were more of a group that were consulted during the process rather than a group playing a decisive role.

The evaluation had made clear that it was the responsibility of criticized institutions to take action and that a new evaluation was planned to study their expected progress. The sequence of political initiatives and events is somewhat surprising, as the government obviously did not wait for the outcome of that evaluation before taking actions that would completely overhaul the model, an initiative that appears

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[113] Högskoleverket, (2005), *Utvärdering av den nya lärarutbildningen*. Del 3: Särskilda studier.

[114] The Minister responsible for higher education, Lars Lejoborg, presented this, again in a debate artcle in *Dagerns Nyheter.* Lejonborg, L. (2006), "Högskolor som trilskar förlorar examinationsrätt", *Dagens Nyheter,* December 21st 2006, https://www.dn.se/debatt/hogskolor-som-trilskar-forlorar-examinationsratt/

[115] The Alliance government published a debate article in Dagens Nyheter, Sweden's largest morning newspaper, on April 19, 2007 about an upcoming 10-point programme for the school; a reformed teacher education was one of these points: https://www.dn.se/debatt/vi-satsar-35-miljarder-pa-hogre-lararkompetens/. C.f. governmental decision on June 20th 2007 on directives (*En ny lärarutbildning*, Dir. 2007:103) for a governmental inquiry on a teacher education reform (as mentioned above). The inquiry presented their final report in December 2008. (*En hållbar lärarutbildning,* SOU 2008:109).

[116] Dir. 1997:54, *Lärarutbildningen.*

[117] The author of this chapter was assigned by the government to contribute as an expert in this inquiry.

to have been predetermined and hence without a foundation in the follow-up evaluation.[118] In retrospect and from the perspective of contemporary problems with teacher education and the high level of continuity in the criticisms of these programmes, the episode is an example of these programmes' vulnerability to political governance. On the one hand, it is self-evident that politics has a role in setting directives for endeavours of such vital societal importance as teacher education and that policies must ensure quality in such programmes. On the other, politicians are not experts and may cause more problems than they solve if they act without a strong, independent foundation of information. There are risks in not taking action, but it might be even riskier to implement profound change in a badly designed form and in a manner that does not nurture long-term improvement.

The evaluation presented in spring 2008 showed significant improvements, but the problems with too few teacher educators with PhDs remained in many places. Institutions had taken action to reduce flexibility and thereby established more standardized pathways in the criticized programmes; however, the problem of weak subject-specific educational studies remained. The evaluators also found deficiencies in compulsory elements and the general progression in studies. Problems of excessive variation remained to some extent, and the programmes still revealed features of fragmentation. For example, the study found that in one university, education was provided without a stable staff; 160 teachers were involved in the programmes, but the average proportion of their work for those programmes was only 10%, a situation that was perceived as insufficient to ensure continuity and coherence.[119] In total, 10 of 26 institutions had at least one programme that was not approved.[120]

In December 2008 came the report from the governmental inquiry on teacher education reform and in February 2010, the government presented the bill Best in Class: A New Teacher Education and already in April the bill was passed by the parliament.[121] The new programmes were expected to admit their first students in 2011, before which they all had to receive accreditation, as one consequence of the reform was the introduction of new degrees which rendered all previous accreditations formally obsolete. This decision has to be understood in the context of the political debates and the government's desire to reduce the number of institutions offering teaching degrees.

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[118] The sequence of events might be clarified. The National Agency for Higher Education published the evaluation results of the follow-up evaluation in its decision of April 8th, 2008 (Dnr. 643-4689-06). A national follow up of the evaluation that had been presented in 2005 was initiated in 2006 and it was these results that was presented in spring 2008. The government did not await the information from the evaluation. Instead the government launched the above mentioned inquiry as the first step to reform how teacher are educated. (C.f. En ny lärarutbildning, Directive, U 2007:103 in which the need for a reform is outlined).

[119] Högskoleverket, (2008), *Uppföljande utvärdering av lärarutbildningen,* Rapport 2008:8 R, pp. 149–152.

[120] Högskoleverket, (2008), *Uppföljande utvärdering av lärarutbildningen,* Rapport 2008:8 R.

[121] The government's proposition 2009/10:89, and April 28, 2010 decision: http://193.11.1.138/sv/dokument-lagar/arende/betankande/ny-lararutbildning_GX01UbU16

After a 10-year reform period, the 2019–2021 evaluations found essentially the same problems as had been depicted in previous evaluations.[122] The programmes' design, implementation and results were according to these evaluations failing.[123] The landscape is shifting and the team of experts asserted that their impression was that teacher education programmes are operated by "hard-working and ambitious teachers"; they reported encountering "many good examples".[124] However, a review of all the institution-specific assessments indicates that variation remains within certain areas. As stated above, there are deficiencies in progression, coherence and assessment, but the expert group also points towards the importance of ensuring students' learning, which we have to understand as referring to the continuation of insufficient examination.[125]

In previous evaluations, the scientific and research basis of the programmes was shown to have clear deficiencies, which remains despite the improvement found in 2008 of the allocation of research resources in several higher education institutions.[126] In the latest round of evaluation, it was found that resources in terms of teacher educators with relevant PhDs were deficient in several institutions; there were also examples of programmes with overly fragmented teaching staff, which the assessment group believed to have a negative impact on education.

A well-developed scientific environment appears to be a necessary but insufficient condition for high-quality education in a scientific sense. Successful researchers tend to have very little teaching time in the programmes, and a key challenge is to remedy this and connect teachers (from within these institutions and from schools) to these programmes in a way that ensures sufficient continuity and allows them to serve as sense-makers for the students, bridging theory and practice in the context of professional formation. Another key challenge appears to be recruiting the most experienced and advanced schoolteachers to serve part time in these programmes.

Thus, in one sense, history repeated itself. The previous teacher education reform was initiated before the results of the ongoing evaluation were clear, and the same thing happened in 2019. For those with the criticism of the 1946 School Commission in mind, it is worth considering what lies in the remarkably similar criticism of

[122] Swedish Higher Education Authority, "Första resultaten klara i omfattande kvalitetsgranskning av. lärarutbildningarna", updated April 16, 2019, https://www.uka.se/om-oss/aktuellt/nyheter/2019-04-16-forsta-resultaten-klara-i-omfattande-kvalitetsgranskning-av-lararutbildningarna.html; Swedish Higher Education Authority, "Högskolekollen", accessed July 29, 2021, https://www.uka.se/kvalitet%2D%2Dexamenstillstand/resultat-fran-granskningarna-hogskolekollen/hogskolekollen.html; and Swedish Higher Education Authority, "Utvärdering av. lärarutbildningar", updated February 16, 2021, https://www.uka.se/kvalitet%2D%2Dexamenstillstand/utbildningsutvarderingar/utvardering-av-lararutbildningar.html

[123] The assessment group's opinion of April 15, 2019 (dnr 411-00458-17), p. 3.

[124] The assessment group's opinion of April 15, 2019 (dnr 411-00458-17), p. 10.

[125] The assessment group's opinion of April 15, 2019 (dnr 411-00458-17), p. 6.

[126] For example, funding for teacher education research at the universities in Uppsala, Gothenburg, Örebro and Luleå University of Technology increased by between 16% and 100%. (See HSV rapport 2008:8 R.).

teacher education programmes. Obviously, these programmes have been profoundly reformed several times, yet several of the same issues persist. And recently the history of Swedish teacher education started a new chapter.

The Swedish parliamentary elections in September 2018 failed to produce a clear winner, and it took until January 2019 for a new government to be established. This was done through an agreement between the parties in power during the previous term (the Social Democrats and the Swedish Green Party) and two liberal parties (the Centre Party and the Liberal Party). The programme they agreed on for the mandate period included a reform of teacher education. It is most likely a clear indication of how politicized education is in Sweden, that issues like bans on the use of cell phones and application of the grading system in schools together with regulations of the number of instruction hours and content in teacher education programmes are part of political negotiations.

An early 2021 ministerial report suggested, in accordance with the agreement that helped establish a government after the election, a series of propositions under the heading of enhanced quality and an increased number of teachers.[127] The report, an outcome of the political agreement mentioned above, addressed teacher quality and teacher shortage issues but, according to the responses voiced in the open consultation process, the proposals failed in that effort.[128] A substantial strand of criticism focused on increased levels of detailed top-down governance as the report entails some formal propositions regarding the legislation and due to a proposals that require changes in the core content of these programmes. Several institutions reacted negatively to the notion that the political level engaged in discussions of content – let alone determine content – in these programmes. Another strand of criticism expressed profound concern over the fact that the report proposed a reduction of the number of semesters and credits required for the alternative route into teaching from three (90 ECTS) to two semesters (60 ECTS). A third strand of criticism pointed to the fact that the ambition to simplify the validation of prior knowledge and experience will result in lowered entrance requirements. In December 2021 governmental decisions was settled on all of those proposals and some came into effect already in January 2022, other will be implemented during in fall 2022 and during 2023.[129]

We have above traced the outcome of the last two decades of evaluations, which on the one hand offers a picture of shortcomings in these programmes but on the other hand reveals both the continuation in critique and how that might lack a more sincere ambition to pay attention to outcome from evaluations. We have also briefly outlined the contours of political involvement in governing teacher education as an

[127] Government Offices of Sweden, *Ökad kvalitet i lärarutbildningen och fler lärare i skolan* (U2021/00301).

[128] Responses (in Swedish) can be found at the following website: https://www.regeringen.se/remisser/2021/01/remiss-av-promemorian-okad-kvalitet-i-lararutbildningen-och-fler-larare-i-skolan/

[129] In total ten legislative regulations were established by governmental decision on December 28th 2021. SFS 2021_1335–1344. Some proposals in the governmental report will be effectuated in later governmental decision (as was proposed in the report).

illustration of, or rather an indication of the conditions for, the local operation and advancement of these programmes. This issue is taken up again in the final section of this chapter, but some aspects of the teacher education programmes are discussed first.

4.3.2.2 Quality in Terms of Students: Recruitment and Attractiveness of Programmes

Is teacher education an attractive choice for a young person today? Is teacher education an attractive choice for a career changer, for someone with a higher education degree and extensive experience? Are enough students attracted to the profession – and are the right students attracted? Application patterns have been used to discuss teacher quality and the teacher shortage, which has recently become a central concern in Sweden. Media have depicted catastrophically low interest in the teaching profession by highlighting that a larger cohort of young individuals in Sweden applied for participation in Paradise Hotel, a famous television show on youth, relationships and sex, than for a teacher education programme.[130] The story goes that more than 10,000 applied for admittance to Paradise Hotel, a higher number than applications to teacher education. In, the same years as this story surfaced, 45,007 applications was submitted to teacher education programs in Sweden and among them, over 34,000 was qualified applicants and over 26,000 applicants had teacher education as their first choice.[131] Stories like this, despite being untrue, tend to stick, as "everyone knows" that no one wants to become teachers. This story aligns to a medialized picture of teacher educations as flawed programs and to the prevalent teacher shortage. It is true that there is a teacher shortage but that's not the same thing as nobody wants to become teacher, shortage it is due to high demands.

The actual situation is that teacher education is the largest educational field in quantitative terms throughout Swedish higher education. In autumn 2020, over 42,000 people applied for a teacher education programme. Almost as many people applied for an engineering degree, and about half as many applied for degrees in nursing or social work, the other large professional programmes.[132] Of the applicants

[130] Cf. *Fler sökte till Paradise Hotel än till lärarhögskolan,* Nyheter24, 15th September 2014; *Färre sökte till lärare än till Paradise Hotel,* Expressen 16th September 2014; *Paradise Hotel bräcker lärarhögskolan,* Dagens Industri, 16th September 2014.

[131] Universitets- och högskolerådet (UHR), 2021, *Antagning till högre utbildning – höstterminen 2021 Statistik i samband med sista anmälningsdag*, pp. 35–36.

[132] Exact figures for fall semester 2020: nursing, 22,200; social work, 22,300; engineering, 37,700; teaching 42,900 applications.

(Swedish Council for Higher Education, Antagning till högre utbildning höstterminen 2020, Analys av antagningsomgångar och trender i antagningsstatistiken (repport 2020:09), p. 30.) Cf. Swedish Council for Higher Education *Analys av antagningsomgångarna och trender i antagningsstatistiken,* UHR report 2018:12, p. 43. For overarching patterns, see the special website on statistics on teacher education: Swedish Higher Education Authority, "Om lärarutbildning".

for the teacher education programmes in the autumn term of 2020, 33,000 were found qualified and 24,000 applicants had a teacher education programme as their first priority. The number of applicants has grown over the last decade but with some variations during the period, more than 18,000 people were admitted in fall 2020.[133] During fall 2019 and spring 2020, close to 10,000 students graduated.[134] Seven of ten students are women, a proportion that has been fairly stable in recent years.[135]

The large number of applicants indicates broad interest in becoming a teacher. However, if the total number of applicants is compared with the number who applied for teacher education as their first priority, it is clear that teacher education is frequently seen as a secondary choice.[136] Of all the applicants to teacher education programmes, only over half applied for them as their first choice. The fact that the figures significantly have been improved since 2011 (+76%) have not yet washed away the mark as a second option program (Table 4.5).[137]

Without other evidence, care should be taken in interpreting the fact that close to half of those applying for teacher education programmes did not make teaching

Table 4.5 Proportion of first-hand applicants (Fall semester 2021)

Programme	Share			
Physicians	76%		➔ Vocational teacher	75%[a]
Teachers	63%	Of which ➔	➔ Preschool teacher	54%
Engineers	60%		➔ Class teacher	49%
Nurses	59%		➔ Subject teacher	45%
Social workers	41%			
Engineers at college	32%			

Source: Swedish Council for Higher Education (UHR)
Universitets- och högskolerådet (UHR), 2021, *Antagning till högre utbildning – höstterminen 2021 Statistik i samband med sista anmälningsdag*, pp. 9–12; See also UHR (2021), *Antagning till högre utbildning höstterminen 2021- Analys av antagningsomgångar och trender i antagningsstatistiken*) Rapport 2021:19, p. 36
[a]Applications for teacher education for vocational programs amounts to less than 5% of the total number of applications

[133] Swedish Council for Higher Education, Antagning till högre utbildning höstterminen 2020, Analys av. antagningsomgångar och trender i antagningsstatistiken (report 2020:09) p.31; Cf. Swedish Higher Education Authority, *Årsrapport 2019* (Stockholm: Swedish Higher Education Authority, 2019), p. 54 and UHR 2018, *Antagning till högre utbildning höstterminen 2018, Statistik i samband med sista anmälningsdag ht2018*, p. 7. It should be noted that application pressure has decreased in recent years as the number of seats has grown faster than the number of applicants.

[134] Swedish Higher Education Authority, *Årsrapport 2021* (Stockholm: Swedish Higher Education Authority, 2021), p. 36.

[135] Swedish Higher Education Authority, *Årsrapport* 2021, p. 37.

[136] Sweden has national admissions and a digital admissions system with which an applicant can prioritize several programmes.

[137] Prop. 2021/22:1 Utgiftsområde 16, p. 46.

their first choice. At the same time, that could be an indicator of how applicants view the attractiveness not only of working in schools and the teaching profession but also of teacher education as such. The attractiveness of teacher education will likely be determined not primarily by particular programmes but by perceptions of the professional role and school activities. The Swedish case shows a trend over time that students with stronger academic qualifications tend to favour programmes other than those oriented towards teaching.[138] It is also true that the profession's so-called auto-reproduction is declining; fewer children of teachers are choosing to become teachers, which may indicate that the profession and/or the school as a workplace have declining appeal.[139] But other explanations may apply as well. Furthermore, there has been an increase in the proportion of students with a working-class background, and this proportion is larger in teacher education programmes than in higher education in general; about half the students in teacher education programmes have parents without any higher education themselves.[140] The notion of the trajectory is dual. On the one hand, it can be perceived that the teacher education field is exemplary in the sense that the programmes contribute to widening participation and to reducing social divisions in higher education. On the other, it cannot be ruled out that this development can also be understood as an expression of the declining prestige and appeal of teacher education programmes and the teaching profession.

4.3.2.3 Do Teacher Programmes Have the Wrong Students?

The Swedish debate about teacher education programmes has, in addition to discussing the number of students, also addresses the quality of the students that do apply. Who can become a good teacher? What is a good student teacher? What are the characteristics of students with the best opportunities to develop into highly capable teachers? Questions of this type are not a particularly Swedish phenomena, but they relate in an important way to the question of whether it is really possible to be educated to become a teacher, which seems to be the underlying premise, an assumption that leans towards the idea that teaching involves qualities with which one is born rather than acquired through education.

The unique teaching qualities that some people obviously possess sometimes lead to the notion that teaching is all about innate talent. That this is not the case is

[138] Bertilsson, E. (2014), *Skollärare – Rekrytering till utbildning och yrke, 1977–2009* (Uppsala University), pp. 107–108 and p. 246. Bertilsson's studies extend to about 10 years ago; it is unclear whether one can assume that the current situation is significantly different.

[139] Bertilsson, E. (2014), *Skollärare – Rekrytering till utbildning och yrke, 1977–2009* (Uppsala University, p. 121).

[140] Bertilsson, E. (2014), *Skollärare – Rekrytering till utbildning och yrke, 1977–2009* (Uppsala University, pp. 105–106 and UHR, 2016) *Kan excellens uppnås i homogena studentgrupper?* En redovisning av. regeringsuppdraget att kartlägga och analysera lärosätenas arbete med breddad rekrytering och breddat deltagande, appendix 3, p. 136.

quite clear from the fact that no human being is born with insights into either atomic physics or the history of antiquity, both areas that are included in school curricula; thus, a person must be educated in these fields to be able to teach them. As in other professions, there is also essential knowledge, both theoretical and practical, on how to practice the teaching profession. Just as we are not born with deep insights into theoretical physics, nobody takes their first breath with the extensive psychological, sociological and pedagogical theoretical insights that facilitate teaching and learning. In addition, the fact that individuals have different capacities to absorb theoretical insights indicates that deliberate education is important. However, the issue is more complicated, as premises are more likely to be orientated around ideas of teaching as a kind of performance technique rather than an deliberate execution of educational insights in a way that results in students' development of knowledge.

It must be noted that the whole educational system is based on the idea that it is possible to learn new things and strengthen weak abilities and that this is best done through different methods which is usually referred to as teaching. Why central teaching abilities should be exempted from that indisputable fact is unclear. As in every other area of study, students vary in their personal qualities and prior knowledge, and some will fail and never obtain a degree, in teacher education as in other areas of study. The fact that individuals are different and have various levels of innate talents and abilities has already been noted in this chapter, but discussions about teacher education sometimes also become a question of whether the right individuals become teachers. The idea that educational shortcomings in schools *mainly* relate to teacher education having the wrong students is rather problematic. Of course, students with higher entry levels in some respects are to certain extent an advantage for a programme, but as a general model, the interpretation that teacher education admits the wrong students must be rejected. It is difficult to avoid the parallel in which schoolteachers explain low outcome levels in their schools by the quality of their pupils rather than their own teaching and how schools do – and do not – support struggling individuals.

Student Teachers' Grades

The Swedish press has recently reported that those who apply for teacher education programmes have poor secondary education qualifications. The daily morning newspaper with the largest circulation published an article entitled "Almost anyone can become a teacher", which began as follows: "The status of teacher education is at its nadir. It is so easy to get into education that it is enough to write the entrance test without reading the questions".[141]

The article claims that just about "anyone" can enter these programmes. It is not easy to decide why so few journalists bother to check whether this is true: can one

[141] *Dagens Nyheter*, "Nästan vem som helst kan bli lärare", March 27, 2013, https://www.dn.se/nyheter/sverige/nastan-vem-som-helst-kan-bli-larare/. This is no specific entrance exam; a student qualifies for higher education studies through their secondary education grades. However, a general test has been in place since the 1970s that any student can use as an alternative: the Swedish Scholastic Aptitude Test (SweSAT).

really get into a teacher programme without any qualifications whatsoever? The answer is of course negative. In order to be admitted to teacher education programmes, certain requirements must be met. According to the authority responsible for admission to higher education in Sweden (The Swedish Council for Higher Education), "for teacher education, the special eligibility requirements are often higher than the requirements for traditionally highly regarded education programmes".[142] The claim that anyone can enter teacher education programmes is simply not correct; the requirements for admission are so high that many applicants are screened out, which reduces the competition among the remaining applicants and the number of "qualified" applicants appears artificially low. According to the admissions authority, it is impossible to say anything about teacher quality based on the results on entrance tests and it is therefore easy to get an inaccurate picture of the admitted students. Instead, it is something of a Catch-22: "the requirement for results on the entrance test is low due to the limited competition and due to the high requirements for special eligibility."[143]

Thus, a student cannot be admitted to a teacher education programme without having adequate grades in specified courses in secondary education that have been nationally identified as a guarantee of maintaining an "adequate level of requirements" for prospective teachers.[144] The entrance test, as an optional and alternative process, for gaining eligibility differs from the use of secondary school grades. Normally, student grades are translated to a numerical value between 0 and 20. According to a study, in the autumn term of 2015, the average grades of entering students in the various teacher education programmes were as follows:

- Subject teacher (secondary education) = 14.6
- Vocational teacher = 14.2
- Primary school teacher = 14.1
- Preschool teacher = 13.9[145]

The figures above can be compared with the average values for those beginning the programmes for physicians and psychologists (approximately 18), civil engineers and dentists (approximately 17) and nurses (15). The grading system has six steps and 15 represents a "C" on a scale where A (20p) is at top and F (0p) represents failing (Accordingly, there are grades E and D below C). On the one hand, an

[142] Swedish Council for Higher Education, "Högskoleprovresultat säger ingenting om kravnivån på blivande lärare", Swedish Council for Higher Education, updated October 3, 2019, https://www.uhr.se/studier-och-antagning/Analys-av-antagningsstatistik/hogskoleprovsresultat_sager_ingenting_om_kravnivan_pa_blivande_larare/

[143] Swedish Council for Higher Education, "Högskoleprovresultat säger ingenting".

[144] Swedish Council for Higher Education "Högskoleprovresultat säger ingenting"

[145] Swedish Council for Higher Education, "Lärarstudenternas gymnasiebetyg, avhopp och studieprestation", Swedish Council for Higher Education, January 13, 2017, https://www.uka.se/download/18.631c2956159bc3ad0866fe3/1487841867516/statistisk-analys-2017-01-25-lararstudenternas-gymnasiebetyg-avhopp-studieprestation.pdf, p. 5. As stated, the maximum figure when translating grades into numbers is 20. However, depending on what a student apply for there is an opportunity to gain two extra points why a maximum of 22 points can be applicable.

average of 14 are low but as on the other hand the number of students is high it is easy to make a misinterpretation about the number of well qualified applicants. The National Union of Teachers in Sweden, one of two teacher unions in the country, conducted an analysis and found that a higher number of students with top grades were admitted to teacher programmes than to programmes for prospective physicians, that is regarded as the most difficult to be admitted to.[146]

The image of applicant qualifications is thus fragmented. The preceding section presented the media image that anyone can be accepted for teacher education, a view that has been shown to be inaccurate. On the one hand, the actual grade values indicate that many applicants for teacher programmes have rather strong qualifications (for example, almost 20% of subject teacher programme entrants had grades above 17). At the same time, few beginners in the preschool teacher education had this level of qualification (only 6%). For comparison, those with a minimum grade of 17 generally constitute 30% of incoming higher education students.[147] On the other hand, the fact that the average grade of beginners in the teacher programmes is below 15 means that half of the students, despite the admission requirements, can be considered to hold insufficient levels of academic preparation. But that observation is far from the picture put forward in media that anyone can be admitted and that it is possible to qualify by completing entrance exams without reading the questions.

There is a certain logic in the argument that students' entry-level scores are a problem, as it seems reasonable to assume that if students were at a higher level on entry, they might be at a higher level on graduation or at least have an easier time meeting the graduation requirements. Thus, the idea of improving teacher quality by recruiting stronger students is easy to understand but critically reflecting on the idea of solving educational problems by improving the quality of incoming students shows that it conflicts in a deep sense with a serious educational approach. Within an educational context, it is more appropriate to primarily explore how programmes and teaching could be redesigned into models that more powerfully accelerate student learning. It is profoundly alien to the very heart of the educational endeavour to first and foremost blame students for shortcomings in learning, as it is up to organizations, their leadership and their teachers to determine how *they* have to change to enable students to become successful.[148]

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[146] The National Union of Teachers in Sweden, *Kan bara de bästa studenterna bli bra lärare? En analys av studenter antagna till lärarutbildning hösten 2014*, (Stockholm: The National Union of Teachers in Sweden, 2015), p. 12.

[147] Swedish Council for Higher Education (2017) *Lärarstudenternas gymnasiebetyg, avhopp och studieprestation*, s. 5–6.

[148] From 2014 to 2017, an experimentation took place that introduced different models of assessments of students before admission at two institutions. The purpose was to improve certain aspects of recruitment levels. However, the evaluation concluded that the experiment did not result in the desired improvements; consequently, the evaluating authority did not recommend a full implementation of these procedures. Swedish Council for Higher Education, *Lämplighetsbedömning av sökande till lärarutbildningar. Utvärdering av en genomförd försöksverksamhet med krav på att den som antas till förskollärar-, grundlärar- eller ämneslärarprogram är lämplig för yrket*

However, in this context, it is worth considering that studies indicate that new teachers' cognitive and social abilities in Sweden have decreased over time. Grönqvist and Vlachos have demonstrated this shift, reporting a rapid and steep decline of entering teachers' cognitive abilities from the mid-1990s to the mid-2000s.[149] The overall effect of teachers' ability on their students' academic outcomes was though surprisingly small; in fact it had a "negligible impact on average student achievement".[150] In a comparative study of 30 countries' school systems, Hanushek et al. (2018) found significantly stronger general links between teachers' cognitive abilities and their pupils' achievements.[151] Notably, this study showed that Swedish teachers' abilities were actually slightly above the average in the 30 countries studied. However, Grönqvist and Vlachos reported another important finding; namely, that teachers with stronger social abilities showed a greater capability to reduce the gap between low- and high-performing students' academic outcomes, while teachers, or at least male teachers, with stronger cognitive abilities tended to work in the opposite direction. So, students' qualities do matter but not to the degree often assumed, neither in assumed way. Rather they can affect outcomes in surprising ways; finally, from a comparative perspective, Sweden's educational problems do not appear to primarily be an issue of teachers' cognitive abilities.

In summary, it is clearly the case that teacher education programmes do not attract the academically strongest candidates but within this group, the largest student body in academia, there are a large number of exceptional students. As stated above, the broader socioeconomic background profile of the students has also changed. The fact that future teachers are not recruited from the upper socioeconomic level of society is not necessarily an educational problem but may well be a political and social problem, if it is a problem at all: welcoming first-generation higher education students is hardly a negative attribute. The great challenge is to organize teachers' education so that it prepares student teachers well, regardless of their backgrounds or previous qualifications, so that when they graduate, they can all teach at high levels. Then, for the purpose of teaching excellence, teachers' continuing education must realize the idea of lifelong learning in a structure that works for teachers. However, there are signs that teacher education programmes do have operational problems, to which we turn next.

(Stockholm: Swedish Council for Higher Education, 2018). See also P. Gerrevall, ed., *Att bedöma lärarkvalitet: skicklighet, lämplighet & kompetens* (Stockholm: Natur & Kultur, 2017).

[149] Grönqvist, E., and Vlachos, J. (2016) "One Size Fits All? The Effects of Teachers' Cognitive and Social Abilities on Student Achievement", *Labour Economics,* 42 (2016). The study is, among other things, based on data from enlistment prior to military service and thus only includes men. Furthermore, the study period extended only until 2006.

[150] Grönqvist and Vlachos believe that only 5% of worsening school results can be explained by this decline: "One Size Fits All?", o. 149.

[151] Hanushek, E., Piopiunik, M., and Wiederhold, S. (2018) "The Value of Smarter Teachers: International Evidence on Teacher Cognitive Skills and Student Performance", *Journal of Human Resources* 54, no. 4 (2019): pp. 857–99.

Dropouts from Teacher Education Programmes

Teacher education programmes have also come for criticism due to the number of dropouts. From time to time, dropout rates have generated some alarmist headlines in the media like "Sky-high dropout from teacher education".[152] In one newspaper, an interviewed student described how "everyone just dropped [out]. Lastly, we were only around five people attending".[153] The picture that emerges is of programmes in crisis, which is often linked to the situation in schools. This section therefore takes a closer look at the teacher programme dropout situation and teachers leaving schools and the teaching profession.

On average, in Sweden about 20% of students leaves the 10 largest professional programmes before their second year. Medical students have the highest survival rates, with only 8% dropping out. Programmes for engineers, nurses, lawyers and social workers have an average frequency of early dropouts, as does preschool teacher education. Of the major professional programmes, dropout rates from teacher education for primary and elementary (grades 1–6) schools and subject teacher education (secondary education, grades 7–9 and 10–12) stand out with 26 and 35%, respectively.[154]

There are some general patterns to note. In higher education studies, it is generally the case that dropout rates relate to age, gender, and immigrant background. These patterns also apply to teacher education; younger students quit to a greater extent than slightly older ones, which is most visible in programmes preparing students to teach in primary and elementary schools.[155] Furthermore, significantly more men than women drop out of teacher education, as does a considerably higher proportion of students with an immigrant background. For example, 35% of men and 24% of women leave primary school teacher programmes; in subject teacher programmes, 32% of those with Swedish backgrounds quit compared to 44% of those with an immigrant background.[156] However, in general, student social backgrounds play a relatively minor role in dropout rates from professional programmes in higher education; the difference in the rate between students with highly educated and less educated parents is only 4%, on average. This is also true of programmes for preschool teachers and primary and elementary teachers but there are

[152] *Svenska Dagbladet,* October 12th 2017. C.f April 19th 2016: "High drop-out rates from teacher education programmes".

[153] *Metro,* November 6th 2017: "Lärarkrisen: Här hoppar två av. tre lärarstudenter av" (The teacher crisis: Here two out of three teacher students quit").

[154] Swedish Council for Higher Education, *Tidiga avhopp från högskolan. Analyser av genomströmning på de tio största yrkesexamensprogrammen* (Stockholm: Swedish Council for Higher Education, 2017), pp. 19–39. This study uses data regarding novice students admitted from fall 2012 through spring 2014. The study analyses the 10 largest programmes with a focus on vocational degrees, which means that vocational teacher education is dropped.

[155] Swedish Council for Higher Education, (2017), *Tidiga avhopp från högskolan. Analyser av genomströmning på de tio största yrkesexamensprogrammen*, p. 21.

[156] Swedish Council for Higher Education, *Lärarstudenternas gymnasiebetyg, avhopp och studieprestation*, p. 7.

larger differences in subject teacher programmes for secondary education, with 31% of those with highly educated parents quitting compared with 39% of those with less educated parents.[157]

Students with better secondary school grades generally quit programmes to a lesser degree; on average, only 11% of those with the highest grades (over 19 points) leave, compared to 30% of those with the lowest grades (below 11 points). This pattern is clearly reflected in teacher education: of those with the lowest grades, 22% of prospective preschool teachers, 36% of prospective primary school teachers and 51% of prospective subject teachers leave their studies.[158] This suggests that, even if it may be easier to be admitted to these programmes, students with insufficient prior academic preparation struggle, sometimes mightily, to meet the programme requirements.

Dropout rates do not necessarily indicate low educational qualities in a programme. They might indicate that other alternatives appear more attractive, or the programmes are quite demanding and thus cause dropouts. It is difficult to determine an appropriate or "desired" level of early dropouts. It is likely not desirable that nobody to quit professional education programmes as one can anticipate that some applicants simply fail in their studies. In addition, it is rather the case that an ideal teacher education asks students profound and challenging questions about themselves, about what they want to become and how they want to contribute to learning in society through their professional efforts. A strong teacher education programme also places significant academic demands in terms of both knowledge acquisition and mastering knowledge, developing scientific, critical and ethical approaches and, of course, extensive teaching capabilities. Overall, this means that such programmes will filter out a certain number of students, primarily during the early years of their studies. In fact, it can be argued that early and conscious dropouts are desirable in certain respects. Unfortunately, researchers do not know much about which dropouts are due to programme standards, which are due to students' dissatisfaction with their programmes and to what degree they are due to students experience of schools as a challenging work-place etc.

One could assume that students with the strongest grades from secondary education would be the most likely to quit if they think that a programme lacked quality, as such students have more options than others. These dropouts could serve as indicators of low quality in a given programme. If that assumption is correct, then the data reveal certain flaws in teacher education programmes. Among higher education students in general, those with grades between 17 and 19 have dropout rates among beginners of 14 and 11%, respectively, compared with 22 and 17%, respectively, of the same categories of students leaving the subject teacher programme and 20% of both categories for programmes preparing students to become primary and elementary teaching. Relatively speaking, it is more common for stronger students to leave

[157] Swedish Council for Higher Education, (2017), *Tidiga avhopp från högskolan. Analyser av genomströmning på de tio största yrkesexamensprogrammen*, p. 23.

[158] Swedish Council for Higher Education, (2017), *Tidiga avhopp från högskolan. Analyser av genomströmning på de tio största yrkesexamensprogrammen*, p. 25.

teacher education programmes than other programmes; given the starting point, that may indicate quality problems.[159] At the same time, it is reported that dropout rates are much higher for students with weaker secondary school grades; for example, in programmes for teaching in secondary school, only 15% of students with grades above 19 leave, whereas 54% of students with grades under 11 and 44% of students with grades between 11 and 13 drop out.[160] To conclude, dropout rates indicate some quality problems in these programmes. It might be the case that some strong students find that the programmes do not operate at appropriately high levels, but we do not know if they are reacting to what they experience in their current programmes or whether other professional programmes attract them during their education studies. The high level of drop-outs among teacher students with weak secondary grades indicates however that these programs up-holds high levels requirements on students. It could be taken as a sign of quality that weaker students drop out as they struggle with the academic level of teacher education programmes. However, in accordance with what is argued above, an educational perspective would hold that these programmes are insufficient if they are not able to work with students to make them successful in their studies. The picture is two-fold. It is beneficial that weak students have to leave these programmes, but – and especially in times of a teacher shortage – it is a disadvantage to not be capable of accelerating these students' learning to reach the required levels.

If the follow-up is broadened from focusing on beginner students to information on attendance later in the programmes, the image of problematic dropout rates is reinforced. After six semesters, attendance (the proportion of students who still are registered) is usually between 69 and 75%, which is also true of preschool teacher education. However, programmes for prospective primary and elementary teachers have a lower rate (61%), and subject teacher education sees less than half (47%) of students remaining in the programme after six semesters.[161]

This information is cause for concern about how well the programmes for primary, elementary and secondary teaching are working. These data also clearly indicate major flaws in the equality of these programmes since dropout rates differ markedly among various institutions. Within teacher education, in some programmes retain nearly 80% of their students through graduation, while others are below 30%.[162] These data clearly indicate the possibility to conduct teacher education in ways that maintain the same standards as other higher education programmes, but institutions

[159] Swedish Council for Higher Education, (2017), *Tidiga avhopp från högskolan. Analyser av genomströmning på de tio största yrkesexamensprogrammen*, p. 25.

[160] Swedish Council for Higher Education, *Lärarstudenternas gymnasiebetyg, avhopp och studieprestation*, p. 9.

[161] Swedish Council for Higher Education, (2017), *Tidiga avhopp från högskolan. Analyser av genomströmning på de tio största yrkesexamensprogrammen*, pp. 33–35. För yrkeslärarutbildningen gäller att ca 75% av de studerande finns kvar under andra studieåret vilket möjligen är en jämförbar mätpunkt; Swedish Higher Education Authority, *Årsrapport 2019*, 51.

[162] Swedish Council for Higher Education, (2017), *Tidiga avhopp från högskolan. Analyser av genomströmning på de tio största yrkesexamensprogrammen*, pp. 33–35.

solve the task differently, despite the national regulation of the programmes; the substantially different results across institutions demonstrate a lack of equality.

To conclude, Swedish teacher education programmes on one hand largely follow the dropout patterns found throughout Swedish higher education; on the other, some teacher education programmes (and programmes in other disciplines) diverge from the general pattern. Dropout rates are higher in large parts of the teacher education area, but the cause or causes behind that fact need to be explained in greater detail. The fact that those with poorer grades leave teacher education programmes to a greater extent indicates that those programmes are maintaining a certain standard of performance, but at the same time, this cut-off means that fewer students in the end become (well-prepared) teachers, which will only worsen an already severe teacher shortage.

Finally, it must be acknowledged that these programmes, which are centred on teaching and learning, should have greater expertise in organizing learning at a higher level than other programmes, and it is reasonable to argue that they should be able to develop modes of operation that allows students who initially fall behind, to catch up and develop the necessary knowledge and competence more rapidly and more deeply. Naturally, if anyone can do that, it should be teacher educators. The consequences would be enormous, and it is in fact remarkable that this appears not to be the case. The fact that more people with immigrant backgrounds leave these programmes is equally troublesome. There is an urgent need for in-depth studies and follow-up by the authorities, which is the basis used here, to explain this phenomenon. One study that deepened the issue examined the relationships between Swedish student teachers' motives for their study choices and dropping out; it found that students with more altruistic motives, such as a desire to help others learn and to contribute to society, had the least inclination to drop out.[163] This is but one example of the kind of studies needed to understand why students leave programmes and what dropouts actually indicate in terms of programme (and incoming student) quality.

4.3.3 Teacher Education Programmes and Teaching Capabilities – A Challenge for Academic Education?

Debates on quality tend to focus on whether operations are conducted correctly, but it is also essential that the right things are in focus. We might ask whether programmes are dedicated towards the most essential aspects of what teachers need to learn – indeed, this is a key question.[164] It is notable that despite much debate on

[163] Jungert, T., Alm, F., and Thornberg, R. (2014), "Motives for Becoming a Teacher and Their Relations to Academic Engagement and Dropout among Student Teachers", *Journal of Education for Teaching: International Research and Pedagogy* 40, no. 2, pp. 173–185.

[164] There is a long time span between the 1946 School Commission's statement: "Obviously, as well as hitherto, the emphasis must be placed at the very core of the teaching action: the art of teaching" (SOU 1948:27, p. 358) and the statement, "If we are serious in the perception that it does matter what students learn themselves in school and education are important for society and for

teacher quality, there is virtually no systematic follow-up to answer the question. Theoretically, it would be possible to test new teachers' preparedness for teaching, but the reasons why this does not happen are quite obvious; it would be a resource-intensive task as the number of students is so large, and it is unusual to have final examinations of this kind in Swedish higher education.[165] Instead, the final thesis work is intended to fulfil a similar function, along with the aspiring teacher's final internship. One could also ask whether such tests would answer the question at all. Student teachers can acquire much knowledge about their subjects and pedagogical theories and learn to conduct research without developing the ability to deliver high-quality teaching that would enable their pupils to learn, even though that can fairly be perceived as the core of the teaching profession.[166] So, whether programmes offer the "right" learning opportunities is not easily to determine; however, in some years, certain institutions have conducted surveys among alumni to get their views on this issue.

4.3.3.1 Testimony from Alumni Surveys

One way to assess both whether things are being done correctly and if the right things are being done in teacher education programmes is, of course, to ask former student teachers.[167] For almost 10 years, institutions delivering teacher education in Sweden jointly conducted such surveys. Two years after completing their degrees, graduates were sent a questionnaire in which they could evaluate their studies and their preparedness for teaching by answering questions regarding how well their programme had supported them in their goal to acquire the relevant competence for the teaching profession. Overall, respondents were satisfied with their studies; approximately 80% would recommend their programme to others. However, an early study (completed in 2010) noted that only approximately 60% of respondents

individuals, then we must be serious in the care of the teaching profession and teaching skills, this the most difficult of the arts" (SOU 2018: 17, *With teaching excellence at the center –- a framework for teachers and principals professional development*, p. 109). In the 1970s, prospective teachers received grades in "teacher proficiency". The rating was perceived as relatively arbitrary, which probably contributed to the loss of perspective itself (see, e.g., https://pedagogiskamagasinet.se/lararskickligt-ett-betyg-med-godtycke/). The development of comprehensive matrices with criteria for assessing student teachers during VFU can be regarded as a contemporary attempt to establish an idea of teacher excellence standard.

[165] They do exist, however, as in nursing: https://www.his.se/globalassets/tillfalliga-dokument/vfu/nkse-information-vardverksamhet.pdf

[166] It is worth noting that when the teacher certification system was introduced in Sweden in 2011, the model entailed that new graduates would serve in a school for 1 year, after which the school's headmaster would certify that the new teacher had the qualities required for certification. This model thus offered the opportunity to answer the question of whether students developed appropriate knowledge and abilities during their studies. However, the requirement for such a probationary period was removed fairly quickly because the system was unable to handle this task.

[167] For transparency, the author was the initiator of this work, serving as vice chair for The Swedish Association for Deans in Teacher Education.

considered their education satisfactory in terms of preparation for direct teaching work.[168] These results were confirmed in later studies (four questionnaires administered between 2011 and 2017).[169] However, even if a majority responded positively regarding the value of their studies, the fact that 30–40% did not feel that way must be understood as unacceptable.

In a survey of secondary teachers who had earned their teacher's degrees in various study programmes offered in Sweden from the 1980s through the 2001 reform, Bejerot et al. found a similar pattern; among those who had graduated more recently, just over 50% felt that their education had made them "well prepared" for teaching in a methodological and practical sense.[170] Additionally, these researchers claimed that they could demonstrate that the this preparedness had decline over time, but they also pointed towards a mixed trajectory in which some areas had improved. Overall, they believed that preparedness for teaching in terms of students' acquisition of "practical teaching competence … has deteriorated over time" and that these programmes' "adaptation to professional requirements has also deteriorated over time".[171]

As touched upon above, there is a lack of knowledge about the actual quality in teacher education programmes in terms of solid information on learning processes and how well programmes prepare students to enter the profession and begin shouldering concrete daily teaching tasks. However, we find indications of negative trajectories. We do have to be aware of the fact that in parallel with what might be systematic indications of reduced preparedness for teaching, it may be the case that the daily challenges for teachers are increasing. The school system has been reorganized, pupils tend more and more to act as customer rather than learners, administration has increased along with demands for individual support and so on. All these factors may indicate that the negative trend could be more appropriately explained as not being able to respond to changing conditions and challenges in schools rather than deteriorating quality in teacher education programmes. In addition, different initiatives have been taken that aim to improve student teachers' opportunities to develop the crucial capacity to take leadership in the classroom and teach effectively.

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[168] Åstrand, B. (2012), "Does Teacher Education Matter? Newly Graduated Teachers' Evaluations of Teacher Education in Sweden", *Reflecting Education* 8, no. 2 (2012): pp. 6–22.

[169] Bertilsson, E, (2018) *Tidigare lärarstudenters syn på lärarutbildningen. Analys av Lärarutbildningskonventets alumnenkäter 2017, 2015, 2013 och 2011*. In connection with the inquiry into new teacher education, a questionnaire study was conducted in 2007, which points in the same direction; namely, that there were shortcomings in the preparations for practical teaching; Statens Offentliga Utredningar, 2008:109, *En hållbar lärarutbildning*, p. 134.

[170] Bejerot, E., Hasselbladh, H., Forsberg, T., Parding, K., Sehlstedt, T., and Westerlund, J. (2018), "Förberedd för läraryrket? Lärare under 40 år av. reformer", *Arbetsmarknad & Arbetsliv* 24, nos. 1–2, pp.7–26.

[171] Bejerot et al., "Förberedd för läraryrket?", p. 7. Bejerot and Hasselbladh (2020) claim that the development of the Swedish teaching profession has been hampered by the post-war policy of using the school system and education as central instruments for societal change because it placed priorities other than educational matters in the foreground. Bejerot, E. and Hasselbladh, H. (Eds.) *Professionalisering av lärarutbildningen. Reformer i Sverige och Finland* (Lund: Studentlitteratur, 2020).

4.3.3.2 Internship: The Crucial and Practical School-Based Education

For the development of teaching capabilities, it is of great importance that student teachers have extensive opportunities to practice with an experienced teacher, although to become successful solid subject preparation and theoretical studies of learning and teaching are also essential.[172] A purposeful programme design that includes an elaborate relationship between theory and practice is extremely important but is often the Achilles's heel of these programmes. Inadequately designed and operated internships might even erase what student teachers have learned instead of bringing theoretical insights into useful practice.[173]

In the context of the 2001 Swedish teacher education reform, the discourse on what was earlier labelled as "student practice" or "period of training" was abandoned in favour of a terminology that viewed that activity as an *educational* activity, just like seminars and lectures. The whole programme was to be understood as an educational endeavour; for the best outcome, one part was to be located at higher education institutions and the other in schools, which required a shift in terminology. At the same time, the concept of "teacher educator" was extended to include schoolteachers involved in, for example, the supervision of student teachers during their internships. From a historical and comparative perspective, this development was important as it signalled a more holistic and coherent understanding of these programmes and an increased awareness of the need to develop more vivid organizational relations between teacher education programmes and schools and among the individuals involved. It is also worth considering that this development entailed an increased attention to the theoretical understanding of teaching practice and the need to conduct research with a more didactic approach. At the same time, this shift increasingly emphasized teaching in terms of an embodied practice and the importance of student formation into a professional enactment of their theoretical studies.

In light of what evaluations and other follow-ups have put on the table, two special initiatives have recently been undertaken at the national level to improve student teachers' internships. A special national follow-up of this part of initial teacher education was conducted and a provisional introduction of teacher training schools was implemented.[174] The follow-up from 2015 showed that student teachers' school-placed education in general had improved; institutions had allocated "significant"

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[172] Ball, D. L. & Cohen, D. K. (1999), Developing practice, developing practitioners; Toward a practice-based theory of professional education, in, Darling-Hammond, L. & Sykes, G. (Eds), Teaching as a learning profession: Handbook of policy and practice, San Francisco: Jossey-Bass; C.f. Darling-Hammond, L. *Powerful Teacher Education – Lessons From Exemplary Programs*, Jossey-Bass 2006*;* Loughran, J. *Developing a Pedagogy of Teacher Education – Understanding teaching and learning about teaching,* Routledge, 2006.

[173] C.f. Korthagen, F. (2001), *Linking Practice and Theory – The Pedagogy of Realistic Teacher Education,* Routledge, 2001, passim.

[174] In context of the change from "training" to "education", this terminology is somewhat surprising, as the political level decided to look backwards and use a term from the past despite alternatives being available.

resources to quality assurance and these studies functioned "significantly better".[175] Student teachers were supervised to a greater degree by experienced teachers, 30% of whom were working for at least 22 years.[176] However, it became clear that there were problems with the preparation of supervisors. Preparatory courses were organized differently, and both overall conditions and participation varied. However, it was also noted that very few student teachers failed, and it was assumed that it was not a sign of high quality; rather, the opposite, and the follow-up recommended that the government should make a nationwide investment in courses for supervisors.[177]

The study also illustrates higher educational institutions' efforts to increase equality in how students are assessed but also makes clear how varied teacher education programmes are nationally. This is likely partly due to the changes connected to the reform in 2001. With that reform, the conditions and frameworks of students internships became a local issue to be negotiated into agreements between each higher education institution and cooperating municipalities.[178] That model appears to have ended the existing tradition of collaboration between teacher education programmes and receiving schools. The new model became more of an administrative process rather than part of a discussion on how to best design this collaboration to make it conducive to students' learning; in addition, many supervisors found that their prior remuneration for their work in this regard had disappeared.

Another aspect of the model was that as these programmes depended for their operation on this collaboration, they had a very weak negotiating position. For example, they could not require that supervisors should have a certain level of experience, that there be education for supervision or that there be appropriate conditions for supervision. In the past, supervisors were often named by the higher education institutions and schools were obliged to accept prospective teachers, but when receiving student teachers became a matter of negotiation, municipalities could flatly refuse to accept students. The compensation models also changed. Previously, supervisors had been remunerated directly from these programmes but under the new model, sending institutions transferred financial resources to municipalities and it was up to them to decide how to allocate those funds. Some continued to pay teachers for supervision, while others allocated the money to the team to which the supervisor belonged as a kind of collective resource; over time, teachers reported that these resources effectively vanished.[179] Despite intentions to the

[175] Swedish Higher Education Authority, (2015), *Uppföljning av den verksamhetsförlagda utbildningen inom lärar- och förskollärarutbildningarna*. Rapport 2015:24 (Stockholm: Swedish Higher Education Authority, 2015).

[176] Swedish Higher Education Authority, (2015), *Uppföljning av den verksamhetsförlagda utbildningen*, p. 30.

[177] Swedish Higher Education Authority, (2015), *Uppföljning av den verksamhetsförlagda utbildningen*, pp. 43–44.

[178] It was also possible to make agreements with private school owners.

[179] A report from The National Union of Teachers in Sweden in 2019 reported that 90% of supervisors were not granted time for their supervision in their work schedules and that 60% reported not receiving remuneration for this task; The National Union of Teachers in Sweden, (2019), *VFU-*

contrary, the organization of internships appeared to have been severely weakened due to the 2001 reform; however, as a consequence of the follow-ups and the significant teacher shortage, improvements have been launched at both the national and local levels to again develop stronger and more conducive relationships between teacher education and schools.

4.3.3.3 Experiment Involving Re-introduction of Particular Teacher Training Schools and Improved Funding

The 2008 report on reforming teacher education also suggested the establishment of field schools.[180] Teacher training schools had long been used in Sweden and were part of the teacher seminars established in the nineteenth century as part of the emerging school system. However, teacher training schools were abolished in the 1970s, partly due to the growing insights into what became known as "practice shock" or "reality shock", as it was perceived that the experiences gained in these schools did not fully match the challenges novice teachers faced in regular schools after graduation.[181] In 2013, the government decided to conduct an experiment that re-introduced teacher training schools to improve the quality of student teachers' practical preparation.[182]

Fifteen higher education institutions participated in this 5-year trial, and the Swedish Higher Education Authority evaluated it. Its analysis was oriented around three perspectives: concentration, competence and collaboration. The report found that a higher concentration of students was achieved in fewer schools, which was believed to facilitate quality in planning and implementation. It also found improvement regarding supervisor competence and preparation for that task. Courses that prepare supervisors had been improved and the exchange of experience and collegiate learning increased, forms for supervisors feedback and support had improved, and collaboration between higher education institutions and schools had been strengthened, including research collaboration and the organization of internships.[183]

For this experiment, extra resources were allocated nationally. At the same time, the government increased the general funding for the school-based part of teacher

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handledare är värda både tid och pengar – En undersökning om VFU-handledarnas otillräckliga villkor (Stockholm: The National Union of Teachers in Sweden). There is a lack of studies on the history of supervision and how it has been reimbursed. However, anecdotal information provided to the author by experienced supervisors indicates that in the 1970s and 1980s such remuneration could add 10–20% to a teachers basic salary.

[180] Statens Offentliga Utredningar, 2008:109, *En hållbar lärarutbildning*, pp. 401–402.

[181] Statens Offentliga Utredningar, 2008:109, *En hållbar lärarutbildning*, p. 405.

[182] Utbildningsdepartementet, *En försöksverksamhet med övningsskolor och övningsförskolor,* PM U2013/4305/S (Stockholm: Utbildningsdepartementet, 2013); See also SFS 2014:2 *Förordning om försöksverksamhet med övningsskolor och övningsförskolor inom lärar- och förskollärarutbildningar.*

[183] Swedish Higher Education Authority (2020), Universitetskanslersämbetet, *Utvärdering av försöksverksamhet med övningsskolor inom lärarutbildning. Slutrapport av ett regeringsuppdrag*

education. In 2015 the allowance was close to 94,000 SEK per student annually; by 2020, it was close to 112,000 SEK.[184] However, it remains to be seen how these changed forms and increased funding will play out. It may be not what is currently being done to improve quality that merits attention; rather, it is how this absolutely essential part of teacher education became so woefully neglected in the previous period.

Quality in Terms of Pedagogy and Teaching: Too Much or Too Little? A Debate About the Academic Discipline of Education

When it comes to the question of the teaching competence of both prospective and current teachers, a conversation has emerged on the importance of teachers, their dispositions and their methods that deserve mention in this context. A 2005 OECD report, *Teachers Matter: Attracting, Developing and Retaining Effective Teachers*, partly shifted the focus of the public debate on education and schooling from structural conditions to emphasizing teachers and teaching capabilities – or what are often called "teaching skills" – and thus the conversation also involves teacher education. The debate in Sweden was led in a particular direction by Minister of Education Jan Björklund who in the early 2010s began to argue for the reintroduction of a more strict teacher-led pedagogy, in contrast to ideas of student-centred teaching.[185] In the Swedish education tradition, there has long been a tension, perhaps even a conflict, between those who perceive traditional teaching for transmission of "pure" knowledge and "facts" for what is nowadays labelled as employability as most essential and those who advocates for a teaching approach anchored in "progressive pedagogy", in which pupils' acquisition of knowledge includes the importance of socialization, subjectification and their future lives as active citizens. Within these divergent ideas on what education is fundamentally, about there are also clearly diverse understandings on what teaching should look like: the right and wrong teaching methods. In comparison with other professions, it must be understood as highly exceptional that a minister, or any member of the government, would express opinions in his public role on what methods are to be used in a profession, and his criticism of teaching in schools consequentially also targeted teacher education and what was called the "educational elite".[186]

It is difficult to fairly describe the loud debate in all its aspects, but it is worth noting that on one hand, it includes voices that argue that the problem with teacher education programmes is that they no longer entail dedicated studies in the academic subject of education (pedagogics); on the other, it is argued that it is precisely studies in Education (Pedagogy) that are at the heart of the problems in teacher

[184] Budgetproposition för 2015, (2014/15:01) vs. Budgetproposition för 2020 (2019/2020:1).

[185] In fact, the terminology used alluded to teaching from the pulpit. Björklund, J. (2011), "Dags för läraren att åter ta plats i skolans kateder", *Dagens Nyheter,* March 13th, 2011.

[186] Lindelöf, K. (2015) *Kunskapsrörelsen – Larmet gick redan 1979* (Stockholm: KulturFront). Cf. Holmberg, O. (2013), "Hatet mot progressivismen", accessed July 29, 2021, https://www.skola-ochsamhalle.se/flode/skolpolitik/olle-holmberg-hatet-mot-progressivismen/ and T. Wedin, T. (2015) "The Rise of the Knowledge School and its Relation to the Resurrection of *Bildung*", *Nordic Journal of Educational History* 2, no. 2, pp. 49–67.

education.[187] Paradoxical yes, but the clash rests upon, in addition to shifting normative points of departure, uninformed ideas about what student teachers actually study and whether perspectives developed from within or from outside.

There are no requirements that student teachers study Education, and the relationship between that subject and teacher education varies between institutions. The discipline (Education) was once developed in Sweden to support teacher education but, as in other contexts, being focused on teaching and children are not the most prestigious choice for a career. Perhaps for this or other reasons, Education distanced itself in many respects from the education of teachers and from teaching as an activity. So, the assumption that student teachers study Education is to a large extent incorrect. What is required (in addition to subject studies and the like) is a full year of studies in educational sciences and that aspects of teaching and learning are included in subject studies like math and language. These classes in educational sciences can be taught by teachers with a background in Education or by others, but student formally receive credits in Education only rarely. In addition to this complexity, there is a layer of the criticism that argues that Education (and most of educational sciences is likely meant) advocates a post-modern epistemology that does not respect facts and notions of teaching as not being about teaching something to someone but rather about being a facilitator of someone's learning.[188]

The contemporary debate seems to be part of increasing ideological tensions that again politicize education as a phenomenon. Problems in schools have returned to the agenda, and those who do not tap into analyses focusing on structural inequalities explain shortcomings by insufficient competence among teachers; for them, the root cause is thus teacher preparation and primarily Education. However, critics have mistakenly assumed that student teachers study that discipline, which is why their explanation of school problems as relating to studies in Education is somewhat flawed. This is especially so due to the fact that since the 1990s, there has been considerable tension between the practice of teacher education and Education, as the latter became perceived by the former as insufficiently interested in conducting research of a more practical or clinical nature in support of teacher preparation. New academic disciplines became established, the most influential of which is Educational Work.[189] There are no national statistics available on this point, but universities in

[187] See for example Enkvist, I, Henrekson, M, Ingvar, M & Wållgren, I., *Kunskapssynen och pedagogiken. Varför skolan slutade leverera och hur det kan åtgärdas* (Stockholm: Lorensvik, 2017).

[188] See for example Säfström, C. A. & Saeverot, H. (2015), Att skada pedagogisk kunskap. Striden om lärarutbildning i Sverige och Norge, *Pedagogisk Forskning i Sverige*, Vol. 20, No. 3–4. (C.f. Säfström, C. A. (2014), The passion of teaching at the border of order, *Asia-Pacific Journal of Teacher Education*, Vol. 42, No. 4.); Kornhall, P. *Barnexperimentet. Svensk skola i fritt fall.* Leopard förlag 2013; Linderoth, J. *Lärarens återkomst – från förvirring till upprättelse.* Natur & Kultur, (2016);. See also "The 'Bashing' of Educational Research", *Confero – Essays on Education Philosophy and Politics,* Vol. 6, No. 1, December 2018.

[189] In her dissertation Inger Erixon Arreman described how Educational Work emerged as an academic discipline. (*Att rubba föreställningar och bryta traditioner. Forskningsutveckling, makt och förändring i svensk lärarutbildning*, Erixon Arreman, I, Umeå universitet 2005). More recently, the journal on Educational research in Sweden published a thematicissue on this process of disci-

Gothenburg, Linköping, Karlstad and Umeå not only established Educational Work as an established discipline but also developed extensive PhD programmes and produced excellent research.

From a broader perspective, we note that over time Education has also become marginalized in relation to teacher preparation in a more profound manner, as the concept of "educational science" has gained a dominant position during the last decades; it serves as a kind of umbrella term for different disciplines of importance for teacher preparation. Among them is Education, which was previously established with the intention of being the scientific foundation for teacher preparation. So, from this perspective, the criticism that claims that educational problems relate to student teachers' obligatory studies in Education reveals a somewhat dated understanding of the field of teacher education. However, that mistake is more technical in nature and in essence does not reduce the line of criticism claiming that how teachers are educated appears to be insufficient for successful classroom teaching. What *is* of importance here is to understand how the search for explanations of schools' shortcomings other than structural conditions ends up focusing on bad teaching, bad epistemology and bad teacher education.

The dichotomy between these positions – the importance of structural preconditions versus the importance of teaching – is in any case false, as both aspects are of vital importance and co-exist in a sequential way; structural conditions, like segregation, funding and access to competence, are of course important, but it is also a fact that at the end of the day, given such preconditions, the qualities of key processes in schools, primarily leadership and teaching, will be decisive. The fact that an excellent teacher can remedy disadvantage is not an argument against the impact of structural conditions or an argument against combatting a disadvantaging structure, but it is an argument for also focusing on teaching excellence.

4.4 Swedish Teacher Education: Quality and Equality

What is the status of contemporary Swedish teacher education, and what are its real challenges? The previous sections have tried to sketch some contours of the problems. Societal problems are also to a large extent educational problems and hence problems for teacher education, although there is a tendency to try to solve societal

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plinary change within the educational sphere. (*Pedagogisk Forskning i Sverige*, 2018 (vol. 23 no. 5). Critique towards Education as an academic discipline with inadequate focus on teaching and concrete classroom practice has also been voiced from within the discipline. (See for example Eklund, H. (1995), *Pedagogisk forskning under en femårsperiod. En studie av innehåll och forskningsmönster i svenska doktorsavhandlingar under åren 1988–1992*. Linköpings universitet; Eklund, H. (2000), *Svenska doktorsavhandlingar i pedagogik åren 1993–1997. Ämnesområden och forskningsmönster*. (Linköpings University) and Eklund, H (2008), Svenska pedagogikavhandlingar. En studie aktualiserad av elevers svårigheter att i åk 9 nå godkända resultat i svenska, matematik och engelska. *Pedagogisk Forskning i Sverige*, vol. 13 no 4.

problems through education in an inappropriate manner.[190] Much of the discussion about how teachers are educated relates to questions about the level of school students' achievements, which is hardly surprising. At the same time, it must be understood that just as a school's broad assignment consists of different aspects that together form a composite, so the tasks of teacher education programmes are multiple and can only be understood when viewed as a whole. What determines the properties of a composite is the composition itself, which means that if some parts are changed, the whole is inevitably affected. The focus on teacher education's contribution to student achievement might intuitively be regarded as central to the discussion of quality in teacher preparation, but it must also be understood as an insufficient approach to an analysis of these programmes' challenges.

The presentation so far has focused on quality and only touched on another central factor: the question of equality and equity. When schools were decentralized and became market-based, the national government also surrendered a large part of its control over the schools. From that perspective, teacher education remains a national control mechanism of importance for equality and equity in education. As touched upon above, both designs and forms appear to have shifted significantly within the Swedish teacher education landscape, which can be understood as a significant challenge in itself. The introduction of the teacher certification system in 2011 can also be understood from this perspective, but its ability to ensure equal access to teacher competence in schools remains significantly limited.

It is important to have a nuanced, exploratory and development-oriented conversation about how education for teachers can best be delivered. This chapter has described the overall features of the model for educating teachers that currently prevails in Sweden; it has also pointed to both change and continuity in these developments and the teacher education area more generally. The field of education is dominated by certain perceptions. One involves the value of constant adaptation and change; in other words, the value of national reforms.

There are reasons to reflect on the general value of these efforts, and more specifically what changes have come about that have positively affected education and are instrumental for schools to achieve their primary purpose. As this chapter witnesses, the constitutive element and primary goals of these programmes are schools, their students and those students' achievement. Outside that context, we do not need teacher education. This means that the value of teacher education should be measured primarily on how well graduates can affect student learning and thereby contribute to schools in their struggle to achieve their purpose. In that context, we have to remember the wide scope of the purpose of education. Education is not only about a narrow qualification for working life; rather, we have to bear in mind when thinking about outcomes that education is about the full development of individuals and as such a contribution to societal progress. However, it is not teacher education but educational science research that is part of an extended endeavour, which is also

[190] Tröhler, D. (2016), Educationalization of Social Problems and the Educationalization of the Modern World, in Peters, M. A. (ed), *Encyclopedia of Educational Philosophy and Theory*, (Singapore: Springer Science).

true of the other branches of academia: the eternal quest for knowledge. That effort has a value in itself, but the shaping of students into teachers has its sole value in relation to society's ambitions to educate its population.

A consequence of this notion is that teacher education reforms and the models they strive to implement must draw primarily upon solid studies of that outcome. However, that is easier said than done. Theoretically, and from a distance, it appears self-evident and quite feasible to establish information on how certain teachers from particular programmes impact their students. In reality, that is neither easy nor even doable due to the profound complexity of education and the resources that would be required for such a study. There is not space here to dive more deeply into the broad debate on this issue. It is important, though, to consider that no such information has been on the table for any teacher education reform and as a consequence, those reforms have all rested on rationales other than this most important – if unrealistic – one.

An added point here is that there is a discrepancy between the often very loud discussions about the quality of teacher programmes and the quality of the documents on which reforms are based. Given that, we can also reflect on the value of national reforms versus other alternatives.[191] It is likely that new measures are needed to monitor different qualities in these programmes at the local level. This means that new forms of examining programme quality must be developed, along with more sincere and dedicated institutional approaches towards these programmes which, despite their size, are in some respects marginalized in terms of areas like organization and research funding. Thus, this chapter ends with further remarks on challenges and options.

4.4.1 Today's Teacher Shortage

Teacher shortages are deeply troublesome for education and can have different causes, such as poor working conditions in schools, bottleneck problems in teacher education, inadequate long-term planning by central and local administration and so on. The teacher shortage issue welcomes all types of politically oriented interpretations because it is a multidimensional problem that invites metaphors like the chicken or the egg and the downward spiral. Having said that, it is true that Sweden's population has increased by about 15% since the turn of the millennium, and there is a shortage of personnel in the welfare professions that is only expected to increase in the future.[192] The number of pupils in schools is expected to grow by about 15%

[191] Åstrand, B. "Alternative Paths of Reform? Exemplary Programs, Critical Inquiry and Increased Professionalism" (forthcoming).

[192] According to data on the population from Statistics Sweden (https://www.scb.se/hitta-statistik/sverige-i-siffror/manniskorna-i-sverige/sveriges-befolkning/). Sveriges Kommuner och Landsting, (2017), *Utbilda för framtidens välfärd – statens roll för kompetensförsörjning i samarbete med kommuner, landsting och regioner* (Stockholm: Sveriges Kommuner och Landsting, 2017).

between 2017 and 2027,[193] which places more demands on staff in schools, especially as an unusually large number of teachers are set to retire during the period. Over 15 years have passed since the alarm bells started ringing. For example, in 2004, the government noted Sweden's relatively high teacher density from an international perspective but also that Sweden had a relatively large proportion of teacher without full qualifications and the high average age of Swedish teachers which meant that efforts would be needed to ensure a fresh supply of teachers.[194]

Despite those alarm bells, not much happened. It is important to understand that with the decentralization and marketization of education came a gap between the national level, with the government responsible for providing schools with educated teachers, and municipalities and private school organizations that are the ultimate "users" of the teaching force. So, providers and recipients ended up in a dysfunctional setting in terms of both teacher quality and teacher shortage. In addition to the shift to decentralization and marketization, deregulation was also a salient feature of the 1990s reforms, and national directives that required a teaching degree for permanent employment as a teacher were abolished. As a consequence, the proportion of qualified teachers has diminished, something that the introduction of teacher certification in 2011 aimed to amend; however, that task depends largely on the supply of graduates, which has been shaky.

Effective efforts have not been made to increase the attractiveness of the teaching profession and to secure teacher recruitment, which is deeply troublesome given the current severe teacher shortage. The forecasts vary, but it is clear that the shortage in the coming years, despite increased educational efforts, will amount to over 12,000 teachers.[195] The starting point is already troublesome; only approximately 70% of teachers in compulsory schools hold the required qualifications.[196]

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[193] Sveriges Kommuner och Landsting, (2018), *Fokus på: Skolans rekryteringsutmaning – lokala strategier och exempel* (Stockholm: Sveriges Kommuner och Landsting), p. 13.

[194] Governmental proposition no. 2004/05:1, area 16, pp. 50–51: "The teacher density is high in international comparison, in the Swedish school, but a factor that needs to be noted is that the average age of the teachers in the Swedish school is relatively high. Sweden, like many other countries, also has a relatively large proportion of teachers who do not have a complete teacher education. All in all, continued efforts are needed at all levels to increase the attractiveness of the teaching profession and to secure the supply of teachers".

[195] Making solid prognoses appears to be a difficult task. As late as in January 2021 the prognosis was a shortage of above 45.000 teachers. (Ökad kvalitet I lärarutbildningen och fler lärare I skolan, governmental report dnr. U2021/00301, p.81). In December 2021 the National Agency for Education announce that there still are a huge demand but the prognosis is that the shortage "only" amount to 12.000 teachers. (https://www.skolverket.se/om-oss/press/pressmeddelanden/pressmeddelanden/2021-12-14-fortsatt-stor-brist-pa-behoriga-larare%2D%2D-men-behovet-minskar, accessed 220519). In 2017, the same agency predicted a shortage of over 180.000 teachers, a figure that Swedish Association of Local Authorities and Regions echoed in an influential report. (Skolverket 2017, Redovisning av uppdrag att ta fram återkommande prognoser över behovet av förskollärare och olika lärarkategorier, Dnr U2016/02335/S, p. 101; Swedish Association of Local Authorities and Regions, 2018, Skolans Rekryteringsutmaningar – lokala strategier och exempel, p. 15).

[196] 70% of primary and lower secondary school teachers are qualified: https://www.skolverket.se/om-oss/press/pressmeddelanden/pressmeddelanden/2019-03-12-lararbehorigheten-minskar-i-grundskolan-men-okar-i-gymnasiet

With such a large proportion of uncertified teachers, the National Agency for Education has been forced to develop support efforts for these teachers in the form of guidance for people without teaching experience. This is not about support for traditional substitute teaching (an hour or a day here and there) but guidance for those who have long term-contracts for teaching without qualification. This advice is accessible on a national website and offers documents and short video clips that introduce key concepts.[197] From a teacher educator perspective, this is deeply provocative, as it suggests that one could acquire teaching competence in just a few minutes of video observation; no one would dare go to a medical doctor who was instructed in this way. However, even though it is deeply problematic from the professionalization perspective, it is obvious that it is better to offer high-quality support to inexperienced persons that are assigned to teach than to leave them alone to figure out what to do. However, the severe teacher shortage and how it is being handled in Sweden is highly risky and might negatively affect the status of teacher education and the teaching profession itself. What worse is, is that teacher shortage ultimately hurt students.

The teacher shortage and the debate about its nature and its solutions are directly related to the question of teachers' competence and teaching quality. The fact that solutions to the problems of teacher shortages and declining teacher quality can easily collide becomes obvious when considering the different options at hand. The 2021 ministerial report illustrates this by arguing for the need to increase teacher quality and recruit more teachers.[198] However, the large number of responses in the consultation process made it clear that a common interpretation is that the ministerial proposals will increase the number of teachers by lowering requirements; while that may successfully combat the teacher shortage, it will do so by reducing teacher quality, which is counterproductive given the simultaneous desire to increase quality and hence learning and development among pupils.

At the heart of questions around teacher shortages and teacher quality is a fragile balancing act. There is a great risk that badly designed initiatives to counter one of these two problems will worsen the other. In Sweden, approximately 8000–10,000 students graduate with a teacher degree each year, but the relevant authorities estimate that those numbers would need to double to meet the coming need for teachers.[199]At the same time, these programmes have problem in terms of quality in organization and processes, and increasing volumes of students appears to also

[197] Skolverket, "Introduction för lärare – kunskaper, lärande och undervisning", Skolverket, updated April 13th, 2021, https://www.skolverket.se/skolutveckling/inspiration-och-stod-i-arbetet/stod-i-arbetet/introduktion-for-obehoriga-larare-i-skolan/introduktion-for-obehoriga-larare%2D%2D-kunskaper-larande-och-undervisning; cf. https://www.dn.se/debatt/nytt-stod-ska-ge-obehoriga-larare-battre-forutsattningar/

[198] Government Offices of Sweden, *Ökad kvalitet i lärarutbildningen och fler lärare i skolan* (U2021/00301).

[199] Swedish Higher Education Authority, (2019)"Ämneslärare i årkurs 7-9 och gymnasiet. Ökande behov väntas i flera undervisningsämnen, Statistik analys, 2019-03-26", (Stockholm: Swedish Higher Education Authority,).

increase dropout rates. The number of seats in teacher education programmes have been increased substantially since 2015.[200] However, as dropout rates are rather high, in many cases every second student leave, and as increased intake almost by definition result in lowered qualification on the applicants, not even substantial increase in seats result in desired growth of graduated teachers.[201]

As discussed above, quality issues relate not only to student recruitment but also to teacher education as a mass enterprise that involves large groups of teachers in organizations with weak capacities for coordination. A turnaround would require increased numbers of classes, teaching in small groups, enhanced requirements and tailored parts of programmes. The tradition of increasing admission numbers tends, according to experience, to increase dropouts. And in the end, recruitment relates to the level of appeal that the profession has among students, and effective long-term strategies must work along with those kinds of insights. A spring 2018 government inquiry proposed a series of actions to improve education through making the teaching profession more attractive. It stressed the importance of professional autonomy, reduction of administration and establishment of extensive opportunities for career-long learning in the form of improved conditions for continuous professional development, recognition of competence acquired and improved opportunities to be assigned to tasks according to competence.[202] These proposals remain still in process (2022) despite a wide national endorsement of the propositions and recommendations made by the inquiry.[203]

From the perspective of the near future, though, the teacher shortage and the question of teacher quality will be the major challenges facing Swedish teacher education. They are difficult in themselves and are not made easier by the fact that they interact with each other. In all likelihood, simply further increasing the number of seats in every teacher programme is not a viable way forward, as these higher education institutions, at least under the current regulations, are not able to focus their resources sufficiently to solve this problem. The teacher shortage does not have one solution; rather, there are several. On the one hand, it involves organizing work in schools based on the prevailing situation; on the other, it entails both developing alternative forms of education and changing each school into a true learning environment. Such a strategy has to focus on the idea of systematically advancing teaching abilities among those who are active in schools rather than simply ensuring that they hold a certificate; in essence, it has to focus on realities rather than mere

[200] For example, in 2014 it was announced 9000 new seats in these programs (Prop. 2013/14:100, p. 47).

[201] C.f. Universitetskanslersämbetet (2017), Lärarstudenternas gymnasiebetyg, avhopp och studieprestation and Riksrevisionen, (2021), *Riktade utbyggnadsuppdrag till universitet och högskolor – regeringens styrning genom utformning och uppföljning,* RIR 2021, no. 1, p. 24.

[202] SOU 2018: 17. The author chaired that inquiry.

[203] The Ministry of Education presented in 2021 a report (*Professionsprogram för rektorer, lärare och förskollärare,* U2021/03373) on their strategy and the report are currently out on an open consultation. https://www.regeringen.se/remisser/2021/07/remiss-av-promemorian-professionsprogram-for-rektorer-larare-och-forskollarare/

indicators. It simply involves starting with those who today work in schools and establishing procedures in support of both informal advancement of teaching capabilities, an initiative that if well designed, will also lead to formal qualifications over time. The guiding principle must be that everyone that teaches in schools, with or without the required degrees, systematically and continuously enhances their competence day after day, week after week, semester after semester and so on. Doing that requires a generative infrastructure. At the same time, stakeholders must face this challenge and be ready to understand why other developments must be implemented and how it is essential for an educational institution like a school district or, for that matter, each individual school to be organized in accordance with foundational understandings of knowledge and competence and how their growth are facilitated among not only students but also teachers. However, this theme extends beyond this chapter on initial teacher education, so we leave the issue of teacher shortage in Sweden with these comments.

4.4.2 Organizational Conditions for Effective Governance and Development of Teacher Education

As stated above, there are indications that the quality of teacher programmes in Sweden needs to be strengthened in certain respects to increase their capacity to make student teachers more successful as teachers. The picture is not all negative, as has been shown; evaluations also point towards progress over time. However, the fact that these programmes have strengths is not an argument against further development. On the contrary, insightful analysis of these strengths will show not that they represent "best practices" but what should be viewed as "next practices" for programmes that are struggling.

An essential prerequisite for advancement is an elaborated understanding of what properties or qualities a successful programme has; that piece of knowledge then has to be transformed into a locally contextualized understanding of not only its purpose but also an understanding of why that is essential and how these mechanisms work together with a well-elaborated notion of how the particular conditions at the local site could best be employed. Second, but of equal importance, it is decisive to have the ability to implement these ideas. As outlined above, Sweden has a fairly extensive national framework, but key aspects are always conditioned locally by the circumstances at hand.

Based on the literature on teacher education, it is possible to design successful teacher education in slightly different ways. Linda Darling-Hammond studied in *Powerful Teacher Education – Lessons from Exemplary Programs* (2006) seven particularly successful programs in United States. These programs differed in design and academic context but according to Darling-Hammond they all shared some essential features. These programs not only draw upon articulated notions of high-quality teaching but displayed high levels of *coherence* in how that vision directs program design and execution. These programs taught *a strong core curriculum* and

required students to do an *extensive clinical experience*, interwoven with coursework. Case studies were frequent, and courses often revolved around *inquiry approaches* to connect theory and practice. In addition, assessment was based on *professional standards* and utilizing methods, such as portfolio that centred students' abilities and performance, supporting adaptive expertise. Finally, these programs were grounded in elaborated *school-university partnerships* that not only included students in communities with shared professional understandings but also gave students opportunities to "learn to teach" in "state-of-the-art practice".[204]

In practice, it is all about finding distinct solutions to the basic issues described in this chapter and to establish a strategy for teacher education as an institution and its operational execution in different educational programmes in models that support achieving the ambitions that have been articulated. That may sound trivial at first, but in fact most activities mirror more of the past and their organically based growth rather than deliberate design. It takes leadership to do this, but that leadership must also have appropriate structural support and conditions. For that reason, there is a need for a governance model that ensures that every decision prioritizes student teachers' development into capable teachers.

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Two decades ago, the Higher Education Act included a paragraph that stated that every higher education institution that carries out teacher education must also have a special board responsible for that effort and attached research in the field (where applicable, this was also the case for postgraduate education).[205] The idea was to have not only responsibilities but also executive capacity to always prioritize student learning. This was in principle a leap forward, but many higher education institutions opposed the establishment of such organizational bodies and asserted their institutional autonomy. The directive was among several higher education institutions perceived as a part of a national-level micro-management that hampered the development of teacher education. Resistance forced the relevant authorities to conduct follow-ups on compliance but after only 10 years, the legislative demand for

[204] The paragraph sums up the results as presented in *Powerful Teacher Education – Lessons from Exemplary Programs* (Darling-Hammond. L. 2006, Jossey-Bass, San Francisco, p.276–277). Italics in original. Darling-Hammond elaborated later the synthesis of "features that appear to matter" in her chapter "Teacher preparation and development in the United States – A changing policy landscape" (Darling-Hammond, 2012), in, Darling-Hammond, L. & Lieberman, A. (eds.), *Teacher Education around the World. Changing policies and practices,* Routledge, pp.138–139.

[205] The government's proposition 1999/2000:135: *En förnyad lärarutbildning.*

this governance structure was repealed.[206] Consequently, many institutions changed in ways that allowed other priorities to wield influence.

Based on the organizational changes that were carried out locally in the educational institutions, there are indications that steering capacity has been weakened.[207] The fact that the governance models shifted within institutions does not need to be a problem, given that these bodies have the competence and integrity to purposefully shoulder that responsibility. It may be an open question whether this is the case, but historical experience does not indicate that this is the best solution; at the very least, one could conclude that if it were, we would not have our current problems. It is hard to avoid understanding the historical track record of institutional governance of teacher education as weak, ambiguous and insufficient to prioritise this activity in accordance with its societal importance, and for that matter, its large proportion of higher education students. Becher and Trowler's classic study *Academic Tribes and Territories* points to the fact that "soft" and "applied" sciences and aligned programmes are usually subordinated to what usually termed "hard", "pure" or "basic" sciences, which suggests that significant leadership at the highest institutional level is required for teacher education endeavours to operate successfully.[208]

4.4.3 Mass Higher Education with Quality Requires Exceptional Teacher Quality and a High Level of Individual or Small-Group Tutoring

There has long been discussion about how the post-war transformation of academia from a small-scale elite enterprise into the large-scale educational efforts has affected educational quality. This transformation has been profound in Sweden. In 1953 the number of secondary degrees exceeded for the first time 5000 which equals to about 5% of an annual youth cohort for which that those degrees were the doorway to a career.[209] Today, almost all pupils pursue secondary education, with close

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[206] See Högskoleverket, (2002) *Högskolornas särskilda organ för lärarutbildning,* Tillsynsrapport, Rapport nr 2002: 41 R. (The National Agency for Higher Eduaction) C.f. the governmental proposition no. 2009/10: 149, *En akademi i tiden – ökad frihet för universitet och högskolor.* The ambition to terminate the demand was also announced in the governmental propostition*Bäst i klassen – en ny lärarutbildning* (prop. 2009/10:89).

[207] Åstrand, (2017), "Swedish Teacher Education and the issue of fragmentation: Conditions for the struggle over academic rigour and professional relevance", in *Overcoming Fragmentation in Teacher Education Policy and Practice*, ed. Brian Hudson (Cambridge: Cambridge University Press) pp. 120–124.

[208] Becher, B. and Trowler, P. (1989), *Academic Tribes and Territories: Intellectual Enquiry and the Culture of Disciplines,* (Maidenhead, UK: Open University Press).

[209] In 1953 the number rose above 5000 for the first time; Boalt, G., Husén, T., Johansson, G., and Landquist, J. (eds.), *Psykologisk Pedagogisk Uppslagsbok,* band III, (Stockholm: Natur and Kultur, 1956), p. 1404. During the latter part of 1930s an annual birth cohort was between 85,000 and 90,000: https://www.scb.se/hitta-statistik/statistik-efter-amne/befolkning/befolkningens-sammansattning/befolkningsstatistik/pong/tabell-och-diagram/helarsstatistik%2D%2Driket/befolkningsutveckling-fodda-doda-in%2D%2Doch-utvandring-gifta-skilda/

to 80% graduating.[210] For higher education, the expansion has also been extensive. In 1945, 14,000 students were enrolled in tertiary education; in 2020, the figure was a stunning 384,500 students.[211] Close to 45% of an annual cohort are admitted to higher education studies within 5 years after their secondary diploma and 1.3% of the Swedish population has a PhD or equivalent. During the last two decades, between 2500 and 3000 PhDs have been awarded annually which is 2–3% of a yearly cohort, compared with 5% taking a secondary education degree in the 1950s![212] This pattern is not at all unique to Sweden, instead it is a rather common development in many industrialized countries. However, how that transformation has affected teacher education does vary.

In this chapter, I have reported that students in teacher education are the largest student cohort in Swedish higher education. That might surprise some readers, but it is not that surprising from the perspective of how extensive education is as a societal endeavour. In fact, teaching may be the most common professional occupation. But we have also described the fact that student teachers are among those who receives the least amount of instruction time. Studies in the old teacher seminars prior to the academization of these programmes was organized in a manner with at least double the amount of teaching hours that students receive today.[213]

The merger of teacher education into general higher education institutions and the massification of higher education in general have profoundly affected how teachers have been educated in many ways. To be able to understand this accurately, we must consider the timing of these two changes. The drive towards academization first emerged under the small-scale and elite perception of academia but became more critical later in a situation when academia was transformed into a mass higher education model. We also have to consider that teacher education, by national decisions, was not only merged into higher education at this point; rather, it made a major contribution to that transformation. Teacher education became part of the democratization of higher education in the sense that these programmes recruited

[210] In 2019 it was 78.7% (https://www.skolverket.se/om-oss/press/pressmeddelanden/pressmeddelanden/2019-12-11-storre-andel-elever-tar-gymnasieexamen)

[211] Högskoleverket, (2006), *Högre utbildning och forskning 1945–2005 – en översikt*, Rapport 2006:3R, 16; Universitetskanslersämbetet, *Universitet och högskolor, årsrapport 2021,* 24. (The National Agency for Higher Eduaction).

[212] Swedish Higher Education Authority, (2020), Rekryteringen till högskolan – i riket och per län och kommun, Statistisk analys, 2020-10-06 nr 52-170-20 (Universitetskanslersämbet); Sveriges officiella Statistik, (2018), Universitet och högskolor. Doktorander och examina på forskarnivå 2018 (Third-cycle students and third-cycle qualifications 2018), Statiska meddelanden, UF 21 SM 1901 (SCB 2018), 31, https://www.scb.se/hitta-statistik/statistik-efter-amne/utbildning-och-forskning/hogskolevasende/doktorander-och-examina-i-hogskoleutbildning-pa-forskarniva/.%20C.f.%20%20; https://www.ekonomifakta.se/fakta/utbildning-och-forskning/utbildningsniva/forskarutbildade-i-sverige

[213] The stipulated amount of hours of weekly instruction in teacher seminars varied during the period from mid 1800s to mid 1900s. It appears to have been close to 40 h. The amount of instruction hours was *reduced* in 1960 to an average of 35 h per week. (Nordström, S. G. (ed), *Klasslärarutbildningen i Linköping 1843–1968,* Årsböcker i svensk undervisningshistoria, vol. 136, 1979, p. 40 and p. 103).

broadly from traditions that historically had been extremely underrepresented in academia.

Academization certainly brought a number of advantages, but as it progressed within the process of massification, aspects of crucial importance for the formation of teachers were impaired. One example is the reduction in instruction time; today, it is hard to imagine that profound progress could be made in these programmes without addressing that issue. In addition, it is not only about instruction time per se; it is also, indeed primarily, about how instruction is organized and the competence with which it is delivered. Today, the main educational activity is lectures to large groups of students instead of small groups, and we have to take into account that those academic teachers who shoulder the main responsibility for these students are in general those with lower academic qualifications than teachers in other programmes.[214] It is hard to believe that a more fundamental advance can be achieved without developing a strategy that also takes these relationships into account. Simply expressed, the current teacher education model, with a multitude of lectures in large groups and teaching largely based on each university's less qualified teachers who have a limited time to teach, is of course the major challenge. And typically, the particular competence that are essential for becoming a well-functioning teacher are probably very hard to acquire in a mass higher education format, as those capabilities require extensive and fairly tailored instruction.

The teaching profession is complex in several ways, as is teaching itself. It is a multidimensional activity in which a number of considerations have to be negotiated, balanced and enacted within the blink of an eye. For a layperson, content in terms of grammar, fractions or the Neolithic revolution might be perceived as challenging but mastering content is only the first and perhaps the least difficult step on the road to successful teaching. The task for a schoolteacher is to work with groups of students so that they all experience it as directed to their personal advancement, suiting their personal needs, desires and ambitions and realizing their "full potential" while they fulfil the obligation to compensate disadvantaged students by their teaching and socialize all students as a collective etc. In essence, they must realize all these important ambitions by delivering an education that entails foundational aspects of developing self-awareness, confidence and a personality, along with contributing to democratic virtues and societal cohesion.[215] Everyone who has had this assignment knows how demanding this is; and as noted above, "teaching is an enormously difficult job that looks easy".[216] This is a profession that, on the foundation

[214] An informed guess is that fewer than half of those who teach in these programmes hold a PhD. Many of them are former schoolteachers who of course bring other qualities, primarily competence in concrete instruction, but that is not something that is easily taught in large groups.

[215] The Act of Education. 1 ch 4§.

[216] Labaree, D. F. (2004), *The Trouble With Ed Schools,* Yale University Press, p. 39. C.f. Goldstein, D. (2015), *The Teacher Wars – A History of America's Most Embattled Profession,* Anchor Books in which Goldstein describes teaching in a pre-school class as follows: "Watching a great teacher at work can feel like watching a magic show." What adds to the picture is that Goldstein realizes that what she watched wa show the teacher applied concrete insights from research. (p. 245)

of a professional knowledge base, must be developed into a personal mastery; that requires a certain amount of individualized teaching. Some parts of a teacher education programme might be suitable for large-scale lectures, as in other fields, but other parts are not. Here we touch upon a core problem in Swedish teacher education; these programmes are simply not appropriate in their arrangement of classes. One might claim that the strengths identified in these programmes exist despite rather than because of the conditions in teacher education for; consequently, shortcomings are to be expected when conditions are not sufficient.

The problem of how to reach higher levels of learning is not unique to teacher education. A remedial strategy can be formed along the lines of the first law of teaching (the more teaching, the more learning) or the second (the better teaching, the more learning) or preferably by combining the two. Much research has been devoted to responding to the second law by developing the best teaching methods.

Benjamin Bloom, one of the leading scholars in educational research after World War Two, described in the mid-1980s how his research team worked to resolve the issue and suddenly realized a new dimension of the challenge.[217] Bloom and his team had put significant effort into developing a teaching method called "mastery learning".[218] They felt that they really had developed a teaching model that produced better results compared to a traditional teaching and this was confirmed in studies.[219] However, mastery learning as a method was also based on a typical teaching situation with a teacher and a large group of students. What Bloom and colleagues later found was that if individual lessons, so-called tutoring, were added to the model for a few hours, then the outcome changed dramatically. The student with average results in the tutoring group was superior to virtually all students in the traditionally taught group. Mastery learning had a measurable and positive effect, but the group that also received a certain amount of individual instruction had higher scores by two standard deviations. That model played in a completely different division, to speak in the language of sport.[220]

In simplified terms, what Bloom points out is confirmed by both general human experience and research on expertise. How do we manage ourselves when there is something we do not understand or are not able to figure out how to do? Have we not all experienced how liberating it is to talk to someone who really knows something about the issue, someone that can show us, the ones with the problem at hand, how it works and someone we could ask questions? That is usually hard to

[217] Bloom, B. S. (1984), "The 2 Sigma Problem: The Search for Methods of Group Instruction as Effective as One-to-One Tutoring", *Educational Researcher* 13, no. 6, pp. 4–16.

[218] Cf. Benjamin S. Bloom, Learning for Mastery. Evaluation comment, Centre for the Study of Evaluation of Instructional Programs, (UCLA), May 1968, Vol. 1, No. 2.

[219] Cf., for example, Anderson, S. A. (1994), "A Synthesis of Research on Mastery Learning", Northville Public Schools; Grant, L. K. & Spencer, R. E. (2003) The Personalized System of Instruction: Review and applications to distance education, *International Review of Research in Open and Distance Learning*, Vol. 4, No. 2.

[220] Bloom, B. S. (1984), "The 2 Sigma Problem: The Search for Methods of Group Instruction as Effective as One-to-One Tutoring", *Educational Researcher* 13, no. 6.

experience in a situation with one teacher and 30 learners, or for that matter, one lecturer in a lecture hall, but it can be achieved in a one-to-one or one-to-three situation.

When students in music seek to take new steps in their professional development, they usually apply for a master class, where they, together with a few others and with individualized teaching, learn the next level from a recognized master. In *Peak: Secrets from the New Science of Expertise*, Anders Ericsson and Robert Pool summarize research on how expertise can be developed. A continuous feature is precisely this individual or small-group learning from a master, together with perseverance and attitude.[221] Studies on teacher expertise show that, like other professionals, teachers perform their tasks in specific ways. Therefore, the development of teacher education must not only advance individualized and small-scale teaching, but must also ensure that the highest competence is tied to teaching, professionally and academically.[222]

This perspective does not mean that teachers' foundational knowledge is something personal; rather, it focuses on the fact that there is a challenge in how individuals internalize the general professional foundation of knowledge into personally enacted and extraordinary teaching capabilities. Consequently, a development strategy for teacher education has to combine the first and second laws of teaching. Quantitatively, instruction time must be extensive, as more instruction will yield more learning and qualitatively, a certain amount of added instruction should prioritize small-group learning, individual instruction and increased teacher competence, as more advanced teaching in more appropriate forms will result in increased learning. So, when making national decisions on allocating resources, it is essential to improve funding, while higher education institutions need to reallocate teachers and develop collaboration with schools in models that ensure that the most advanced schoolteachers are also part of the formation of students into teachers. Teacher education needs to draw upon the most qualified teachers, academically and professionally, and to be conducted as a learning activity with excellent conditions for profound and in-depth learning, not as a second-rank activity in higher education.

4.4.4 Adequate Conditions for Teachers' Lifelong Learning

Could it be the case that some aspects of teachers' qualities are too difficult to develop in any teacher education programme, no matter how good? This is a chapter on initial teacher education, but it does deal with problems in education; hence, we also have to discuss teaching as a profession and the importance of professional learning and development throughout the teaching career. Teaching in Sweden is a

[221] Ericsson, A. and Pool, R. (2016), *Peak: Secrets from the New Science of Expertise* (London: The Bodley Head).

[222] Berliner, D. C. (2001), "Learning about and Learning from Expert Teachers", *International Journal of Educational Research* 35, no. 5, pp. 463–82.

profession in which an individual remain. For example, at the end of the 1990s, 75% of teachers that had graduated as secondary teachers in the early 1980s – almost two decades back – were still active as schoolteachers.[223] Teachers that graduated later and started their teaching careers during the 1990s appear to have been more willing to leave the classroom, but the trend in recent years has reversed itself, with teachers again preferring to stay in the profession to a higher degree.[224] A recent study found that approximately 80% of graduates remain in the educational sector, a pattern that has held for at least two decades.[225] Even though a significant percentage of teachers leaves the profession, we have to take into account that an absolute majority stays, a fact that requires us to rethink how society can best develop teaching competence.

For a career that spans over three or four decades, initial teacher education must be understood as only an entrance ticket that is insufficient to support a whole career. Highly demanding and complex professions have often developed systems that, after a demanding pre-service education, gradually educate not only novices but also more senior colleagues into ever higher levels of competence, processes that guides them to be fully independent professionals who are capable of shouldering all professional challenges, including remaining updated on the latest research. Such structures are essentially absent for most Swedish teachers.[226] They are expected to be able to take full responsibility for all teaching situations from day one to such an extent that the teaching career can be described as a backwards model.

Two decades ago, a scheme was established to support newly qualified teacher during their induction period. The scheme was nationally funded, but the model was established in agreements between teacher unions and local municipalities, or more accurately, employers. Follow-ups indicate that fewer than half of newly qualified teachers receive systematic support during their induction period, despite the fact that the national funding has continued to be allocated.[227]

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[223] SCB (2001), *Avhopp från läraryrket och framtida pensionsavgång*. Temarapport 2001:2 från Prognosinstitutet, p. 13.

[224] Hansson, R. (2016), "Vanligt arbeta kort tid som lärare", *Välfärd* 2, pp. 28–29.

[225] Adermon, A. & Laun, L. (2018), *Bristyrken i offentlig verksamhet – Var arbetar de utbildade?* IFAU rapport 2018:19, pp. 18–19.

[226] During the last decades we have witnessed an increased awareness of how important support is during the induction period. (see for example Olsen, K-R., Bjerkholt, E. M., and, Heikinnen, H.L.T., (eds.), *New Teachers in Nordic Countries – Ecologies of Mentoring and Inducation,* Cappelen Damm Akademisk, 2020) We also witness a growth of career pathways and other initiatives aiming at securing teacher quality trough teachers career long learning. Darling-Hammond, L. et al (2017), *Empowered Educators. How High-Performing Systems Shape Teaching Quality Around The World,* Jossey-Bass; c.f. European Commission, (2020), *Supporting teacher and school leaders careers: A Policy Guide.* However, these structures seem still mainly be either marginal phenomena and/or recently implemented under resourced initiatives which potential impact is yet to be seen.

[227] SOU 2017:51, *Utbildning, undervisning och ledning – reformvård till stöd för en bättre skola,* (chapter 11).

The fact is that new graduates are often forced to start teaching in schools with the greatest challenges.[228] After a couple of years, they proceed to other schools once they have gained enough qualifications to make the move. Consider the reality: among many teachers, this is understood as the normal hard entrance years, but is that an appropriate approach to the profession and to children in these schools? A traditional teaching career means that the most inexperienced teacher tackles the most challenging teaching tasks, a totally backwards approach. It is a bad tradition that individual teachers understand this reality as the hard years after graduation, the hard years in which the necessary capabilities come into place. Of course, those who survive – and many do – learn something, even a great deal, but they may learn only to survive rather than to excel by organizing these years into systematic learning and development. From an institutional perspective, it is a model that not are conducive for development as the most precious opportunity to develop teaching capabilities are wasted. The most advanced teaching can most likely only be developed during the most challenging conditions, and that is what this is about. More experienced teachers can not only master teaching in challenging circumstance to a higher degree than novices, they also have better opportunities to learn and develop new teaching models. To be clear, the most advanced teaching can only be developed under the most challenging conditions – and most likely, only by the most advanced teachers! In addition and from the broader perspective of disadvantaged students in these schools, it is a horrifying that current models that offers the student cohort with the highest need the less advanced teachers! Sweden shows clear signs of this pedagogical segregation, where the most experienced and best educated teachers are employed in the schools that mainly draw students who are easy to teach due to their socioeconomic profiles and well-educated parents.[229] In concrete terms, this means that new teachers start with the most difficult tasks and, just as they become more experienced and advanced in their professional work, they take on simpler assignments; in the meantime, institutional learning is absent and students needs are systematically disrespected.

This model for the teaching career must be replaced by a fundamentally opposite model that honours competence, institutional learning and continuously nurture growth of competence and in respect for pupils allocates the most experienced and capable teachers to handle the most difficult teaching assignments. Such a model

[228] During the current teacher shortage, this might have been eased for some proportions of student teachers but, as explained below, this still impacts institutional learning, with the teacher shortage worsening the situation for pupils many of whom are now taught not by newly qualified teachers but by unqualified people.

[229] Hansson, Å & Gustafsson, J-E. (2016), Pedagogisk segregation: Lärarkompetens i den svenska grundskolan ur ett likvärdighetsperspektiv. *Pedagogisk Forskning i Sverige,* Vol. 21, No. 1–2. C.f. Giota, J., Bergh, D. & Emanuelsson, I. (2019).

Changes in individualized teaching practices in municipal and independent schools 2003, 2008 and 2014 – student achievement, family background and school choice in Sweden, *Nordic Journal of Studies in Educational Policy*. *Nordic Journal of Studies in Educational Policy* 5, no. 2, pp. 78–91 and Behtoui, A. and Strömberg, I. (2020), Compensatory school effects and social capital, *Social Sciences,* Vol. 9, No. 11.

must contain several different parts and, from an educational perspective, it is absolutely necessary to build new forms for teachers professional development in a career-long context.

It is a stunning and incomprehensible fact that the teaching profession, which together with researchers must be regarded as the most knowledge-oriented professional practice, is not assured excellent opportunities for systematic lifelong learning. Internationally, processes are under way to address questions of teacher competence from system-oriented perspectives, and an increased awareness of how important this is has been found in Sweden during recent decades. Consequently, we have also witnessed a growth of career pathways and other initiatives aimed at ensuring higher teacher quality through novel forms of career-long learning for teachers.

The Swedish Governmental School Commission (2015) proposed that this issue should be addressed, and two governmental inquiry reports in 2017 and 2018 did just that. *With Teaching Excellence In Focus – A Framework For Teachers' and Principals' Professional Development* proposed the establishment of extensive national programmes for these professions' continuous competence development, to recognize competence and to strategically use competence.[230] As described above, in early 2019 a multi-party agreement in parliament that served as a foundation for a government to come into place. This agreement included an implementation of the proposed model. Accordingly, budget allocations have been decided nationally and Swedish National Agency for Education has been assigned to prepare a launch. Thus, it can be said that the concept of teacher education will also change from referring only to preservice education to also referring to development efforts throughout the teaching career; it will then have the contours of a contract between society and its key profession, granting those who enter the teaching profession not only adequate preparation but also exemplary conditions to be successful year in and year out.

4.5 Conclusions: Advancement by Making It Simple

This chapter has presented the main features of the way teachers are educated in Sweden; for the purpose of a more thorough description, it has been oriented around somewhat eternal tensions, balances and difficulties. When describing a system model like teacher education we usually tend to detach and simplify to make the presentation accessible. However, that might not serve the overarching purpose well as such an approach does not bring forward the complexities that are not easily identified for someone who is not already an expert in the field. The paradox is that a thorough analysis is the best point of departure for a simple and straight forward strategy for improvement.

[230] SOU 2018:17, *With Teaching Excellence In Focus – A Framework For Teachers' and Principals' Professional Development.*

Due to the ambition to deepen our understanding of the important endeavour of educating teachers, this chapter has contextualized recent developments not only historically but also in terms of contemporary politics. Since antiquity, education has been identified as a central governmental obligation; Montesquieu and others rooted in the Enlightenment forwarded such an understanding of the necessity, for democracies to design educational models purposefully so that citizens would come to cherish their constitution: "to preserve it we must love it".[231] Modern democracies like Sweden operate their educational systems accordingly, however debatable the level and sincerity may be, and because of that teacher education becomes not only central for such policy but also possible to view as a lens on contemporary society and some of its inner processes. This role explains much of the interest in the contours of the debate on education in general and teacher education in particular.

In this chapter we have pointed to the continuity of criticism of teacher education despite many reforms and changing practices.[232] It cannot be ruled out that recurring political demands to reform teacher education still rest on unclear or inadequate grounds, badly crafted information on the quality of these programmes or are essentially politically conditioned – and in the worst case, a combination of all three. We simply do not know. The myriad statements about the societal importance of well-educated teachers should in themselves compel a responsible approach to teacher education.

An indispensable aspect of such a sincere approach to teacher education is that knowledge is systematically developed about the necessary, valuable and desirable properties and qualities in these programmes and how they vary over time due to reforms, how they vary institutionally and between different forms of operation and forms of distribution. Without establishing such a solid foundation of knowledge, it is difficult to see how institutions can be held accountable, or for that matter, the other way around: without a solid knowledge base, we as citizens cannot hold politicians accountable for providing our schools with (in)adequately educated teachers! In addition, without such information, how is any programme development supposed to be successful?

The national systems for quality assurance of higher education that have been in operation in recent decades are likely insufficient.[233] From a developmental perspective, it would be preferable if this area of education, on its own basis, would initiate development programmes for higher education and teacher education based on the

[231] The idea that education was vastly important is clearly expressed the famous quote of Diogenes: "The foundation of every state is the education of its youth", but is also visible in Plato, *The Laws*, book VI and Aristotle, *The Politics*, books VII–VII. Charles-Louis Montesquieu, (1748), *The Spirit of the Laws,* book IV (New York: Cosimo Classics, 2011), p. 34.

[232] I have mainly focused on national reforms and not on the many local reforms. The flip side of the criticism of these reforms is the necessity of insightful and systematic local development, institutionally and, as always in an educational context, a transformation that starts from the principle that every teacher will continue to strive to enhance their teaching so as to increase student learning.

[233] However, representations from the relevant authorities have argued for the contrary; see, for example Franke, S. & Nitzler, R, (2008), *Att kvalitetssäkra högre utbildning – en utvecklande resa från Umeå till Bologna,* Lund: Studentlitteratur.

concrete approach established in what is now called improvement science and address the following issues as starting points in the work to "get better at getting better":

- "What specifically are we trying to accomplish?
- What changes might we introduce and why?
- How do we know that a change is actually an improvement?"[234]

It has long been noted that there is an ongoing homogenization and mainstreaming of educational systems worldwide.[235] We must ask why; one response could be that this feature of educational development since the mid-1900s mirrors wider societal processes and shares properties like an increasing division and specialization of labour, the development of the welfare state and so on. An alternative explanation could be that homogenization is caused by an increased exchange of knowledge among different countries and school systems combined with the increased internationalization of research in the field. As a result, "national" policies have become more international in its outlook, and this is equally true of education policy.[236] With increased opportunities to visit other countries for on-site studies of educational systems and the abundance of globalized information, it is now more or less required of municipalities and the local leadership of school districts to study international examples of successful schools rather than in a nearby county. In addition, it is obvious that what could be called the industry of large-scale assessments of educational system, like PISA, to a large extent is part and parcel of this process.[237]

Such explanatory models indicate that the alternatives can be of varying nature, partly oriented towards fundamental structural changes and partly towards more individual-oriented and actor-based explanations. It is also plausible to explain the development as conditioned by the increased bureaucratization of an older and more hands-on tradition of improvements in developmental activities based on extensive schemes for quality assurance. Max Weber argued that bureaucracy was largely

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[234] Bryk, A. S., Gomez, L. M., Grunow, A., & LeMahieu, P. G. (2015), *Learning to Improve – how America's Schools can Get Better at Getting Better.* Harvard Education Press, p. 114.

[235] See, for example Devos, G., Ekholm, M., Kofod, K., Seashore Louis, K., Moos, L., Schratz, M., and van Velzen, B., (2012), "Political Culture and Educational Reform", in *Educational Policy in an International Context: Political Culture and Its Effects*, ed. Karen Seashore Louis and Boudewijn van Velzen (London: Palgrave Macmillan, p. 5) and the description of the so-called Global Education Reform Movement (GERM) in Pasi Sahlberg, *Finnish Lessons. What can we learn from educational change in Finland?* (New York: Teachers College Press), pp.99–106.

[236] Steiner-Khamsi, G. & Waldow, F. (2018), PISA for scandalisation, PISA for projection: the use of international large-scale assessments in education policy making – an introduction, *Globalisation, Societies and Education,* vol. 16. No. 5, pp. 557–565; Waldow, F. (2009) Undeclared imports: silent borrowing in educational policy-making and research in Sweden, *Comparative Education,* Vol. 45, No. 4, pp. 477–494.

[237] Zaho, Y. (2020), "Two Decades of Havoc: A Synthesis of Criticism Against PISA", *Journal of Educational Change* 21, no. 2 (2020), pp. 245–266; Cf. Ringarp, J. (2016), "PISA Lends Legitimacy: A Study of Education Policy Changes in Germany and Sweden after 2000", *European Educational Research Journal* 15, no. 4, pp. 447–461.

caused by competition and that development was driven by efficiency requirements. Moreover, institutional theory has pointed out that competition works in different ways in different sectors and that organizations like higher education institutions and schools compete for legitimacy, which in itself can lead to homogenization: because of their need to obtain broad legitimacy, they have to appeal to wide interests.[238] From such a perspective, dimensions are also added to the complexity, and development can be driven by both endogenous and exogenous processes.

Here we have to consider that these processes impact on the one hand the educational system as such (schools and higher education, including teacher education) and on the other teacher education as a somewhat foreign part of both higher education and schools. It appears plausible to understand this homogenization process in education as pushed by both exogenous and endogenous developments. We can understand the trajectory as a consequence of adaptations to de facto power structures and social realities and as related to more individual-based conditions and to different forms of institutional logic. However, these overarching explanations of educational reforms have a common tendency to be aligned with ideas of transformation through top-down and outside-in processes. The increased structural similarities are perceived to be caused by systems' transformation over time and based on overall decisions. Input for these changes may have come from different directions, as indicated here, but as education is often the responsibility for large entities like a nation, region or state, the alignment is primarily thought to have occurred through centralized decisions.

At the same time, possible scenarios call into question the effectiveness of such models for transformation. External and top-down reforms run the risk of not only being badly designed due to insufficient understanding of the complex nature of educational issues but also, due to the inherent features of traditional implementation procedures causing something like policy sediments with separate layers of understandings and, for that matter, perhaps false notions of failure. Every reform sends the message (sometimes only implicitly) that what was previously done was flawed in one respect or another and thereby create barriers to concrete and actual development.[239] It may also be the case that political argumentation is exaggerated

[238] The concept of isomorphism is central in this respect and can be distinguished as coercive, mimetic and normative; see Paul J. DiMaggio, P. J. and Powell, W. W., (1983), "The Iron Cage Revisited: Institutional Isomorphism and Collective Rationality in Organizational Fields", *American Sociological Review* 48, No. 2, pp. 147–160; Åstrand B. (2013), analyses homogenization processes in Swedish higher education in "Diversity and Homogeneity: Notions on the Role of Higher Education in Democratic Societies", paper presented at the 10th International Workshop on Higher Education Reform in Ljubljana, Slovenia, October 2–4 2013.

[239] "Educational reformers may have wanted to wipe institutional slate clean and start again, but that has rarely happened. Instead, reforms have tended to layer, one on top of another." Tyack, D & Cuban L, (1995) *Tinkering Toward Utopia – A Century of Public School Reform,* Harvard University Press, p. 76. See also C.f. Sykes, G. & Wilson, S. M. (2016) "Can Policy (Re)form Instruction?" för en genomgång av. frågan och med en mer reformpositiv konklusion in Gitomer, D. H. & Bell, C. A. (eds.) *Handbook of Research On Teaching,* American Educational Research Association, pp. 851–916.

to justify the implementation of a reform, a strategy that in the long run undermines not only the operation but also public confidence in the system as a whole.[240]

The recurrent reform of Swedish teacher education certainly reflects this conjunction of problems. Society is constantly changing, and information about this change and how it affects schools will inevitably reach teacher education programmes in one form or another. Individual teacher educators do what they are supposed to do; that is, they teach and try to do so in a way that they perceive as responding to both students' needs and societal demands. At the same time, the system rationale expects academic leaders, who hopefully are active as researchers and engaged in international research communities and thereby gain insights into teacher education cross national borders, and to be dedicated to working strategically towards improvement.

In Sweden, as in most other countries, there is no political agreement on the future, so politicians do not seek to establish consensus on educational policy or teacher education issues. Due to that, we have witnessed a long series of politically initiated teacher education reforms that, because of their weak foundation and rather detached point of origin from an educational point of view, have not led to much positive change; ironically, their low impact causes repetitive reform behaviour among politicians.[241] Together, these forces create something of a downward spiral rather than a shared effort for improvement.

Hence, there is a profound need for a renewed paradigm to perform the essential task of providing schools with the very best teachers. The challenge is not about finding some expert teachers to perform the task but about collective competence within the teaching profession as a whole. It is about how the enhancement, recognition and use of that competence can be arranged systematically.[242] The challenge is not to develop a good school or excellent teacher education but to create an

[240] Cf. "Political leaders capitalize on the public's concern about their schools, often overstating problems to mobilize support for their solutions while underestimating what teachers and principals have to do to make them work."; Cuban, L. & Davies J. L. (2010), *Cutting Through the Hype – The Essential Guide to School Reform,* Harvard University Press, p. 1.

[241] It has to be noted that Helene Hellmark-Knutsson, who served as responsible Minister for Higher Education and Research and consequently also for teacher education (from 2014 to 2019), consciously articulated an intention to *not* implement traditional reforms of teacher education programme during the government's mandate: "Every new government have launched a new teacher education model. I aspire to be the first minister that avoids to do that." *Skolvärlden,* august 15th 2016. Instead she focused on expanding these programmes to counter teacher shortage and to put forward excellent examples as a way to address teacher quality issues.

[242] Hargreaves and Fullan critiqued what they believed to be a misconceived focus on individual teachers qualities: "…the main point is not the individual teacher, for the better of worse, here and there, that counts, but rather how you maximize the cumulative effect of many many teachers over time for each and every student. Students do well because they have a *series* of very good teachers – not by chance, but by design. In other words, you have to transform the *entire profession* – not just the bottom 20% and top 20% but the whole 100%". Hargreaves, A. and Fullan, M. (2012), *Professional Capital: Transforming Teaching in Every School* (London: Routledge, 2012), pp. 15–16.

excellent system that delivers both high and equal quality.[243] And this has to be on a scale and at levels in accordance with what can be expected in a globalized society that urgently needs to transform to meet the challenges that the global community has articulated in the Sustainable Development Goals for 2030.

The form of government pertaining to one of the set of Swedish laws that together comprise that country's constitution states that "public institutions shall promote sustainable development leading to a good environment for present and future generations" and "promote the ideals of democracy as guidelines in all sectors of society."[244] Without including this perspective in our analysis of teacher education in Sweden, the picture would be fatally incomplete. This perspective is easily lost in the general debate that tends to focus on a much narrower understanding of education. It is also the case that educational elements that are pursued due to the profound democratic ambitions of education are criticized as being slack, as they do not focus on what's perceived as traditional schooling, (like math, reading etc) which is deeply unfortunate.

At the same time, it is also likely that one dimension of the problem involves the fact that teacher education is delivered in a traditional academic context that might conflict with central dimensions of teacher education. Simply stated, teacher education have a wider purpose, aligned with compulsory education, to contribute not only to students qualification for working life and their capabilities as citizens, but also to "happiness, human wellbeing, growth of human capabilities and the diversity of understandings of what it is to be human and what a desirable society looks like, as Dewey once wrote '…democracy is more than a form of government; it is primarily a mode of associated living, of conjoint communicated experience.' "[245] As such, teacher education also includes normative guidelines; a teacher must be the bearer of the values that the school system should promote, while the academic ideal of being independent and critical is easily is perceived as conflicting with a more profession-oriented foundation that includes values and democracy.[246] The

[243] Cf. "We have heard a lot about inspirational teachers and superb schools. But excellent *school systems* are rarities." Kirp, D. L. (2013), *Improbable Scholars. The Rebirth of a Great American School System and a Strategy for America's Schools* (Oxford: Oxford University Press, p. 74.).

[244] The Instrument of Government, 1 ch. 2§. https://www.riksdagen.se/globalassets/07.-dokument%2D%2Dlagar/the-instrument-of-government-2015.pdf)

[245] Madalińska-Michalak, J., Åstrand, B. & Snoek, M. (2022), Quality in Teaching and Teacher Education: Key Dilemmas and Implications for Research, Policy and Practice, in In, *Madalinska-Michalak,* J. (Ed), Quality in Teaching and Teacher Education – I*nternational Perspectives from a Changing World,* Key Issues in Teacher Education: Policy, Research and Practice, Vol. 2. 2022. Teacher Education Policy Network in Europe, Brill Publishing. (forthcoming). Dewey, J. (1916/2011). Democracy and education. An introduction to the philosophy of education. New York: The Free Press. (Ch. 7, 2§.), On human capabilities; see Nussbaum, M. C. (2011). Creating capabilities. The human development approach. Harvard: Harvard University Press.

[246] Åstrand, B. (2014), Conflicting Ideas on Democracy and Values Education in Swedish Teacher Education, in Niemi, H, Multisilta, J & Löfström, E, (eds) *Crossing Boundaries for Learning – through Technology and Human Efforts*, Helsinki: CICERO Learning Network, Helsinki University, pp. 223–252 and Åstrand, B (2015), Conceptual Understandings of Democracy and Values as Aspects of Teacher Quality: The Case of Teacher Education in Sweden, *International Perspectives on Education and Society*, Vol. 27, pp. 385–412.

history of teacher education in Sweden indicates how difficult it can be to reconcile these two traditions.[247] It is certainly essential to respond to both requirements as also this is crucial for high quality teacher education.

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[247] Cf. Grant, C. A. and V. Agosto, (2008), Teacher capacity and social justice in teacher education, in, Cochran-Smith, M., Feiman-Nemser, S., McIntyre, D. J. & Demers, K. E. (eds), *Handbook of Research On Teacher Education,* Routledge; Murrell, P. C, JR., Diez, M. E., Feiman-Nemser, S & Schlussler, D. B. (eds), *Teaching as a Moral Practice, Defining, Developing, and Assessing Professional Dispositions in Teacher Education,* Harvard Education Press, 2010; Zygmunt, E. & Clark, P. *Transforming Teacher Education for Social Justice,* Teachers College Press, 2016. See also del Carmen Salazar, M. & Lerner, J. (2019), *Teacher Evaluation as Cultural Practice. A Framework for Equity and Excellence,* Routledge 2019.

Chapter 5
Tension Patterns in Finnish Teacher Education – Recruitment, Reform and Relevance

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Abstract In this chapter, tension patterns and development opportunities within Finnish teacher education are examined. We have chosen to focus the analysis on the recruitment of student teachers, the relationship between theory and practice and mentorship for newly qualified teachers. Tension patterns and development opportunities appear in all three phases, linking the content and form of teacher education.

The analysis examines the overarching idea behind a recently introduced recruitment reform that was developed to let interviews play a larger role in the process. This was developed to address a situation in which an applicant applies to several universities or programmes, but is interviewed only once. The relationship between theory and practice in teacher education remains problematic, despite the practice schools' favourable organizational conditions. New teachers still face challenges when entering the profession; mentoring programmes have been introduced to reduce these tensions.

Like some other provinces in the Nordic countries, the self-governing Åland Islands have their own school system, which has both Finnish and Swedish traits, as well as similar kinds of tensions. Despite the presented tensions, research-based

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teacher education continues to be an appropriate foundation for the continuing development of Finnish teacher education.

5.1 Introduction

Since the nineteenth century, Finnish teacher education for secondary school (grades 7–12) has been taught at the master's level in traditional universities, while teacher education for primary school (grades 1–6) has also been integrated in universities for almost half a century. This integration was motivated by the need for a scientifically based professional qualification (Kansanen, 2014; Lavonen, 2018).

Over the years, teacher education at the master's level has proven its strengths through providing a stable professional foundation for teaching. In terms of public understanding, the university educated teacher has become a recognised position, and there seems to be consensus about the capacity of a higher education degree to secure adequate knowledge and skills. Therefore, during the last decades, no major demands have been made with regard to fundamentally changing teacher education and qualification criteria. Although the structure of teacher education represents recognised and sustainable qualities, it is not problem-free.

Puustinen et al. (2018) identify critical points in teacher education. They claim that the concept of the "teacher as a researcher" is unclear to student teachers, especially to secondary teachers. With a background in different subject cultures, the concept is perceived as jargon without substance. Although such criticism appears to be weak in relation to studies that draw other conclusions (e.g. Chung, 2009), comparative studies have revealed similar shortcomings. For example, a comparative study of coherence within educational programmes has revealed weaknesses in Finnish teacher education (Canrinus et al., 2017). The emphasis on research has meant lower priority has been given to teaching on campus because teacher educators as researchers compete in the same field as colleagues in other disciplines. Furthermore, newly qualified teachers' transition from educational to professional life has proven to be a threshold, with evidence of a growing number of dropouts from the teaching profession (Hansén et al., 2012; Heikkinen et al., 2012; Rantala et al., 2013). Finnish teacher education is thus not exempt from either structural or substantive problems, and since education is a societal mission, continuous efforts are required to respond to changes in the outside world.

Against this background, our purpose is to shed light on some tension patterns in Finnish teacher education that currently appear to be relevant in debate and research. Based on the research in which we are involved and many years of experience as teacher educators, we have chosen to highlight and review the following three tension patterns and ideas for improvement: (1) the recruitment of student teachers, (2) research orientation and practice and (3) newly qualified teachers' (NQT) encounters with professional work. Before examining the identified tension patterns, we

position Finnish teacher education in a Nordic context and highlight some characteristic features. Åland, with its self-designed education, represents an autonomous region of Finland. In a separate section, we will briefly touch upon issues attached to the recruitment of teachers on Åland, which lacks its own teacher education.

5.2 Finland and Reforms in Teacher Education

A look beyond the teacher education programmes in the Nordic countries exposes frequent extensive reforms carried out during the two last decades. As a contrast, in Finland, no comprehensive reform has been implemented since the 1970s. Its reform profile thus differs from the other Nordic countries (Hansén et al., 2012).

Finnish teacher education comprises four main categories (kindergarten, class, subject and special education teachers), in addition to different types of vocational teacher training. The training of kindergarten teachers permits them to work with children up to school age and in pre-primary education for six-year-old children. Class teachers for grades 1–6 are qualified to teach all subjects that are included in the curriculum; furthermore, they must immerse themselves in one or two of the elementary school subjects. The qualifications of subject teachers for lower and upper secondary schools emphasise in-depth studies in 1–3 of the school subjects. A special feature of the educational structure is that special pedagogy can be studied as a major course of study, leading to a master's degree. Special education teachers represent an important competence for the early identification of and support for learners with special needs. In this way, special teachers also contribute to creating equal opportunities for pupils. Special education's preventive function is built into the school system and is not limited to short-term measures (Ström, 2012).

Several researchers (Niemi, 2012; Simola, 2005; Tirri, 2014) have characterised Finnish education policy as having the intention to create an equal and uniform education system, which is also considered to have contributed to Finnish students' high level of performance in terms of international comparisons. Two specific features are usually highlighted in the characterisation of Finnish teachers. The first is the teachers' authority. According to Chung (2009), Finnish teachers create and maintain a certain distance with regard to students and parents. The second feature is condensed in the concept of autonomy. The previously centralised decision-making system was liberalised during the 1980s and 1990s, and the concept of a national curriculum was replaced by the idea of locally designed curricula based on national guidelines (Laukkanen, 1995). This development, in combination with master-based teacher education, emphasised teachers' role as autonomous and professional workers. Decentralisation was based on a culture of trust, according to which teachers possessed the necessary knowledge and moral competence, reflected in their daily work (Lillejord & Børte, 2017; Tirri, 2014).

5.3 Tension Patterns and Improvement Ideas

In the following section, the identified tension patterns, concretised in three questions, are scrutinised: *How can "the right" students be chosen? How can research orientation and practice be integrated? and How can newly qualified teachers be supported?*

5.3.1 How Can "the Right" Students Be Chosen?

Historically, different models have been applied in terms of recruitment to teacher education in the search for "ideal" student teachers. Several variants of selection instruments have been used, directed towards teaching skills and social and cognitive abilities. The continuing search for instruments shows that there are problems in reaching consensus about how to identify students with the ability to fulfil their academic studies and who, at least implicitly, have the potential to be successful teachers.

Since the 2000s, attention has been directed towards nationwide uniform criteria for admission. A so-called multidimensional adapted process model of teaching (MAP) has gradually emerged, and the following dimensions have been identified: a knowledge base for teaching and learning, cognitive thinking skills, social skills, relational skills, personal orientations and professional well-being (Metsäpelto et al., 2020).

There are two ways into teacher education; on the basis of a matriculation examination or through an entrance test. The latter is open to applicants without upper secondary school qualifications. After this first phase, each applicant participates in the second phase, which comprises a standardised multidimensional suitability test, carried out as so-called multiple mini interviews. The idea is that applicants are interviewed at five different stations, where distinct aspects of a teacher's work are measured and evaluated. Being accepted as a student teacher rests on each applicant's result in this suitability test.

A study by Metsäpelto et al. (2019) revealed that those applicants who obtained high marks in the matriculation exam and those who found their studies meaningful were successful. Success in the entrance examination was also associated with a desire to succeed and do better than others, in combination with a slight fear of failure. The results of the selection system, according to the authors, appear to be relevant and are considered to support the development goals for teacher education.

The basic reason for developing a system for the admission of student teachers is the fact that Finnish teacher education has continuously had many applicants. This pressure has enabled the teacher education units to recruit students with good results from upper secondary schools. The reason for young people's interest in becoming teachers lies not only in the status of the master-based teacher education but also in

Table 5.1 Applicants who applied for Finnish class-teacher education and participated in a national selection cooperation network between teacher education institutions (Finnish National Agency for Education 2020)

Number of class-teacher applicants and those selected in different years	2017	2019	2020
Total number of applicants for teacher education	6519	5310	6231
Number of students who started studies on a teacher education programme	960	984	963
Proportion of students who started studies on a teacher education programme	14%	18%	15%

the social context and the status of teachers in Finnish society (Simola, 2005). Table 5.1 shows how Finnish class-teacher education has many applicants, despite a slight declining tendency, and how the proportion of student teachers selected remains constantly below 20%.

Behind the pursuit of standardisation lies the requirement for equivalence in the sample, and the criteria are also stated to correspond to some form of teacher ideal. Standardisation means that everyone is judged according to the same criteria and assessments to exclude arbitrary interpretations. Seemingly objectively measurable criteria do not necessarily self-evidently define perceptions of the ideal teacher. The question of which teacher ideals are allowed to guide the suitability test in search for the "right" student teachers is therefore crucial for schools and society. Continuous follow-up research on how the admission system works in practice is therefore necessary.

5.3.2 How Can Research Orientation and Practice Be Integrated?

We have limited the search for an answer to this question to two intertwined areas: research orientation and the theory–practice relationship. These areas have been chosen against the background of Finnish teacher education's explicit emphasis on a design anchored in a research-founded understanding of a teacher's work. Additionally, the relationship between theory and practice refers primarily to the relationship between campus courses and internships in schools in Finland, mainly conducted in state-based practice schools.

Research orientation: The level of academic demands on teaching staff has gradually increased. In the past, it was considered sufficient for teachers to be up-to-date with the specialist literature in their fields, without conducting research themselves. Today, it is assumed that teacher educators have a doctorate and actively conduct research in the field of teaching. As in other disciplines, teacher education units require the staff's engagement in research and development work, as well as research-based teaching (Kansanen, 1997). Teaching and supervision are assumed to be consistent with new research results and must be carried out by teachers engaged in research.

Student teachers are actively involved in research, which corresponds with the requirements for a professional qualification. A scientifically based understanding of teaching work has been considered beneficial for developing critical thinking and the ability to act autonomously (Kansanen et al., 2000; Lavonen, 2018). Teachers' ability to make educational decisions based on rational thinking, in addition to everyday intuitive decisions, is highlighted as a distinguishing feature of what research-based teacher education must offer (Kansanen et al., 2000). The intention is not that every teacher is qualified to be a fully fledged researcher. Instead, the qualification is aimed at equipping prospective teachers with the readiness to explore their own teaching systematically and reflectively, with the goal of continuously developing their own practice. Ultimately, the research orientation is about improving conditions for students' learning (Hansén & Sjöberg, 2006). Figure 5.1 presents a schematic picture of the positioning of the explicit research component of teacher education, with Åbo Akademi University's class-teacher education used as an example.

The explicit research-oriented component comprises one-fifth (60 out of 300 ECTS) of teacher education and is divided into two phases. During the first phase (bachelor's level), students write a scientific essay that can either be a literature study or an empirical work. In the second phase, students are expected to carry out empirical research (master's level). Both phases are associated with courses in research methodology and relevant seminaries, where the emerging manuscripts are processed, and students are allowed to practise acting as respondents and opponents. This arrangement aims to develop the students' critical awareness and ability to analyse education phenomena through deconstructing concrete problems and finding solutions. In this way, they are given the opportunity to discover the potential that lies in systematically and thematically thinking together. The setup also provides opportunities to actively use and expand the repertoire of educational concepts and thus internalise professional language use.

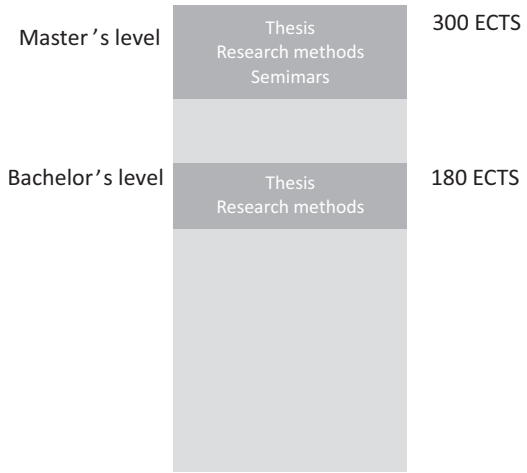

Fig. 5.1 Schematic illustration of the explicit research component (60 ECTS) in Finnish teacher education

Research on how student teachers relate to explicit research activities can illuminate approaches that are applicable to their work as teachers. Eklund's (2014, 2018) studies show that a majority of interviewed student teachers rate the value of dissertation writing as positive. For example, the value lies not only in in-depth subject knowledge and the development of professionalism but also in the perception of the status of a master's degree. Additionally, the students emphasise the opportunities relating to further studies as well as the maturity and the personal development that the dissertation work entails. Students' negative judgments are related to perceptions about the connection to the profession and to missing links to school and classrooms. Too large a proportion of the studies was considered to be dominated by the thesis. When student teachers propose alternatives to the dissertation work, they request more internships, practical work and action-oriented courses. Other researchers have also addressed such criticisms. Puustinen et al. (2018) call for more internship-related research so that, for example, undergraduate students can study how theoretical thinking develops in practical situations (Säntti & Salminen, 2015).

Do theory and practice meet? Historically, teacher education in Finland has had a practical and ethical character, particularly for primary school teachers. The task has been to equip students with the basic knowledge and skills that are considered necessary for every citizen. At teacher seminaries, a strong, normative teacher ideal was developed based on Christian values that would be reflected in practice (Sjöberg & Hansén, 2003). The requirement of scientific knowledge has, in primary teacher education, not primarily been considered necessary for the understanding of teaching practice. The relationship between theory and practically oriented components of teacher education has therefore not been perceived as a major problem. The pedagogical qualification of teachers for higher stages has also been markedly practical, while subject studies at the university level have provided future subject teachers with a theory-based scientific understanding of their topics.

With the academisation of teacher education as a whole, the situation changed, along with an emerging complex relationship between theory and practice. Also, teaching practice should be permeated by theory-based understanding. The purpose of theory is to enable student teachers to describe their practice objectively, by applying scientific terms and a scientific way of thinking to their everyday routine. During internships, students are given the opportunity to apply research-based knowledge and, vice versa, their practice can form the starting point for theory development (Aspfors et al., 2011). Academisation contributes to maintaining tension between scientifically based theoretical understanding and teaching practice. The academic "weight" in education creates an asymmetrical relationship with practice, which is difficult to position in an environment that overemphasises research and academic excellence.

The relationship between theoretical and practical orientations in education is further complicated by the rationality and competence requirements that society imposes on future teachers (Luukkainen, 2000). If practice is too unilaterally focused on the classroom situation, the risk is that teacher education will not succeed in creating an understanding of the social dimension of education. Therefore,

to raise and consolidate the future status of teacher education, social relevance needs to be emphasised in the theory–practice relationship. Society must be able to rely on the fact that schools' tasks are not limited to a reproductive function but also serve as an instrument for desirable changes in social practice. From this perspective, a close and mutually supportive relationship between theory and practice is vital for the quality of teacher education. Although the concept of practice schools is considered to provide appropriate organisational prerequisites for linking theory and practice, student teachers expose the same types of criticism in Finland as in other Nordic countries (Lillejord & Børte, 2017; Swedish Higher Education Authority, 2019).

5.3.3 How Can Newly Qualified Teachers Be Supported?

Although Finnish teacher education has an excellent international reputation, it does not appear to have the capacity to prepare for and respond to all the challenges that teachers face in a rapidly changing environment. However, it should be added that Finland shares this problem with most other countries as the transition from teacher education to professional life is often considered the most critical phase of a teacher's career. The transition, also called induction, is considered a unique phase in the professional development of teachers. Induction includes the socialisation process with regard to the profession and the school community, as well as various types of formal programmes designed to support new teachers (Feiman-Nemser et al., 1999). The transition from studies to professional life is demanding in most professions. In many occupations, workers are given opportunities for growth in their jobs during a transitional period. For new teachers, the situation is different. From the beginning of their employment, teachers bear full legal and educational responsibilities. For this reason, the teaching profession has been described as an "early high-plateau profession", which illustrates the full responsibility that teachers are immediately assigned (Aspfors, 2012). The early working years have also been described as tumultuous and demanding (Lindqvist, 2019).

An increasing number of countries have paid close attention to the problem over the last decade, and various models to specifically support new teachers have been developed. According to a study by Kemmis et al. (2014), three archetypes of mentoring new teachers appear internationally as "supervision", "support" and "collaborative self-development". The first type is aimed at mentoring programmes in which the mentor directs or guides a new teacher through the so-called special standards and requirements during a probation year in order for him/her to become fully qualified as a teacher. The second concerns the support for professional development that a mentor individually provides to a newly qualified teacher. The third relates to mentoring in a group where new teachers, together with a mentor, discuss current relevant issues in order to promote success in the profession and professional development. The different archetypes of mentoring place the new teacher in various positions in relation to the mentor. Lately, studies are also questioning if the

use of formal mentoring, as the only strategy for the support of NQTs, is sufficient. These studies investigate how NQTs find and use informal support from their colleagues (Harju & Niemi, 2020; Kelchtermans, 2019; März & Kelchtermans, 2020). High-quality collegial support, including professional support as well as emotional and social support, is important for new teachers' job satisfaction and intrinsic motivation to teach (März & Kelchtermans, 2020; Thomas et al., 2019).

Although Finland still lacks a national mentoring system, the third form of peer-group mentoring (PGM) has been developed since 2007 in collaboration with researchers, teacher educators and teachers (Heikkinen et al., 2012). An important stage in the development of PGM was the Ministry of Education and Culture's 2010 commitment to the nationwide OSAAVA (which means knowledgeable) programme for the development of teaching staff's professional competence. One of the sub-projects in the programme, Osaava Verme (2010–2016), was intended to support teachers in the transition from education to working life. The project was financed nationally and consisted of a consortium that included all universities that provide teacher education (8) and all vocational teacher education colleges (5). The project included the training of mentors who, in turn, mentored groups of new teachers around the country. Currently, approximately 900 mentors have been trained under the project. In 2017–2019, Osaava Verme was followed by Verme2, which was further developed to offer mentoring support to groups other than new teachers, including student teachers, principals and teachers at the end of their careers (Heikkinen et al., 2020).

A characteristic of PGM in the above-mentioned programmes is its development in collaboration with research-based teacher education, with regard to the professional autonomy that graduates are expected to have after their 5 years of education. In a mentoring group, the teachers are regarded as equals, and participation is voluntary. Each mentoring group, which can consist of up to ten new teachers, is led by an experienced teacher or mentor and gathers six to eight times during a school year. Key features are dialogue, collegiality, well-being and ethics. The organisational setup focuses on different support processes. Didactic support can mean that aspects of planning and the implementation of teaching and student assessments are discussed. Semantic support, which is primarily linked to linguistic aspects, concerns the question of how teachers translate pedagogical concepts from education into a working professional language in communication regarding teachers' work. As the design is based on PGM, social support can be perceived as the essence of mentoring and relationship issues in the meetings with students, colleagues and guardians (Aspfors, 2012). Through the interaction and dialogue that characterise PGM, an individual participant in the group can also experience support, which contributes to increasing one's personal security and courage to act and make didactic decisions.

Experiences of the PGM model are very well documented, with approximately 193 research publications produced during the period 2009–2019 (Heikkinen et al., 2020). A recent literature review by Tynjälä et al. (2020) focused on 46 of these peer-reviewed articles and book chapters. The benefits and challenges of PGM are categorised into three levels: (1) individuals and groups, (2) community and organisation and (3) national issues. At the *individual and group level*, the findings reveal,

above all, many benefits of PGM in relation to teacher well-being and professional and identity development. The obvious advantage of PGM has been considered to be prioritised time for collaboration and thus opportunities to jointly process, discuss and reflect on new teachers' work experiences. The discussions have proven to be mentally supportive and practically solution-oriented. At the same time, the model is undemanding in the sense that it is not burdened by elements, such as performance requirements, judgment or control. The challenges identified are related to time management, participant commitment and, on some occasions, group dynamics. At the *organisational level*, the benefits are mostly indirect as the teachers may act as change agents in their schools. The lack of recognition of peer learning as a form of professional development is identified as a challenge. At the *national level*, the benefits are primarily related to the national network that has developed around the PGM model and the noteworthy body of research-based knowledge produced based on this. The biggest challenge is still the lack of legislation or national collective agreements around PGM. Consequently, PGM does not have any officially recognised status in the education system, and municipalities can continue to choose not to prioritise this form of professional support during financially difficult times. Thus, municipalities greatly vary regarding the questions of whether mentoring is offered and whether mentors are allocated time and payment for their work.

Through Osaava Verme, Finland has formulated guidelines for how mentoring and explicit PGM should be developed (Heikkinen et al., 2015), and a relatively large number of mentors have been trained. In contrast to the binding national agreements that Norway has achieved, municipalities in Finland continue making independent decisions on whether or not mentoring programmes will be introduced. If Finland wishes to live up to the principles of autonomy and equality, national frameworks for mentoring should also be developed in this country.

5.4 Teacher Recruitment on the Åland Island

Åland is an autonomous region of Finland with a population of approximately 30,000 people. The official language is Swedish, which is a protected minority language within Finland (Ålands Landskapsregering, 2021a, b). Its autonomy gives the regional government—Landskapsregeringen—extensive legislative competence, for example, with regard to education. The entire school system has a structure and organisation similar to the Finnish one, but Åland has its own curricula and policy regulations for all school levels. It has been said that the curricula for compulsory and upper secondary school so to say took the best from the Swedish and Finnish curricula. The new curricula from 2021 are written more in line with the Finnish ones, although some concepts and terms deviate from those used in Finnish education. The language of instruction in all schools is Swedish, with an exception for second language learning. While it is not mandatory to study Finnish, English is compulsory from the early grades (Ålands Landskapsregering, 2015). The region's

autonomy, together with its geographical position in the Baltic sea in between Sweden and Finland, flavours Åland's culture, politics and educational issues, but it also creates some demands and contradictions.

Furthermore, Åland offers tertiary-level education at Åland University of Applied Sciences – Högskolan på Åland—but no teacher education (Åland University of Applied Sciences, n.d.). This means that all educated teachers on the island are educated in either Finland or another country, such as Sweden. Thus, teachers working together in schools on the island are educated within culturally different education systems (Furuhagen et al., 2019). Following the autonomous Åland curricula, especially the one used for compulsory schooling, can be seen as a contradictory task since the teachers are educated in relation to other curricula within teacher educational programmes that differ culturally, as highlighted by Furuhagen and his colleagues.

In recent years, the proportion of teachers with a Swedish teacher education has increased and amounts today to about 60%. In particular, the vast majority of teachers who work within the compulsory school system receive their education in Sweden. At the upper secondary level, the proportion of teachers educated either in Finland or in Sweden is quite evenly distributed. A distinct tendency is that younger compulsory school teachers are educated in Sweden, which is not as observable in the case of upper secondary school teachers. According to statistics from 2020, the youngest upper secondary teachers (20–29 year olds) are educated in Finland, but those aged 30–39 are almost all educated in Sweden. Fifteen years ago, the statistics showed the opposite picture, even though the tendency, especially for compulsory schooling, was that younger student teachers received their education in Sweden. The fact that the majority of the teachers were previously educated in Finland was somewhat contradictory, as the curricula at that time were discursively and culturally closer to those in Sweden (Ålands Statistikbyrå, 2020). Today, a similar but opposite contradiction can be identified: Åland's curricula are similar to those of Finland, but more and more teachers are educated in Sweden.

As part of its legislative competence, Åland can decide on teachers' formal qualifications, but as it is constitutionally a part of Finland, all Finnish teacher education is accepted on the island. Furthermore, the Åland government regards Finnish teacher education as the standard in relation to which all other education is assessed. Teachers with an education that, in terms of grades and subjects covered, deviates from the Finnish one, need to undergo an adaptation period. Most teachers educated elsewhere are, however, in agreement with the European Union (EU), considered to be qualified without requiring an introduction to Åland's curricula (Ålands Landskapsregering, 2021a, b).

In summary, a question can be raised regarding whether the Åland government should try to make Finnish teacher education more attractive for prospective teachers or, otherwise, establish its own. Making such a decision could mean that, culturally, pedagogically and didactically, Åland's curricula are taught through a more unified teacher collegium. Until then, one strategy could be to have all new teachers undergo an in-service programme or introductory period in order to be prepared to jointly implement an education framed by a "third curriculum". However, no

discussion exists about how education methodically, pedagogically and didactically can be affected by such a contradiction. Despite the observable tension between Åland's autonomous education system, the lack of its own teacher education and the recruitment of teachers from (mainly) two countries, the education system so far seems to work well in terms of students' achievements.

5.5 Discussion

There is consensus that the approach chosen for teacher education functions appropriately, with no reason to fundamentally restructure the design. However, previous PISA successes have led to a deceptive impression that most matters regarding schools and teacher education work well in Finland. Although the country is considered to have a functioning and academically recognised high level of teacher education, our review has revealed tension patterns, including in areas that have been marketed externally as success factors.

One problem that has emerged concerns recruitment for teacher education. The issue is not the lack of suitable applicants but the accuracy of the selection process. The challenge is to identify appropriate criteria for recruiting student teachers who are motivated and judged as able to successfully complete their studies and work as professional teachers, through a selection instrument based on a theoretical foundation (Lavonen, 2018). The perception of the meaning of teacher quality changes over time and raises the question of what qualities should be given preference. Potential teacher qualities are more extensive than those included in a standardised aptitude test. Another permanent problem is the question of which personal qualities can or cannot be affected by teacher education (Fonseca, 2017). We have also examined two closely related patterns of tensions concerning the idea of making education more scientific through a research-based approach, which is also relevant to practical schoolwork.

The first pattern questions whether a large proportion of education programmes should be based on the premise that explicit research activities are optimal qualification tools. Studies that have examined teachers' and new teachers' perceptions of the importance of dissertations have shown different patterns. Although the possibility of deepening one's research within a chosen theme is perceived as positive, students and teachers are often critical of the concrete benefits in terms of teachers' work (Eklund et al., 2019). Therefore, the questions raised are how the choice of the research topic can be made more relevant to teachers' future practice and how research can be conducted so that student teachers are involved in action-based contact with schoolwork in practice. Action research has been shown to give student teachers opportunities, within their dissertation projects, to meet experienced teachers and observe their daily work in a way that strengthens the development of student teachers' pedagogic action skills (Jakhelln et al., 2016; Rönnerman & Forsman, 2011/2017).

The focal point of the second pattern concerns the question of how the relationship between theory and practice can provide mutual support in daily work. Through its practice school institutions, Finland has provided student teachers with organisational and pedagogical opportunities to implement their research ideas. Through practice in education, student teachers develop a professional identity that can be supported by content-oriented, theory-related courses. We have also pointed out research that claims that theory and practice do not meet, despite the favourable conditions offered by practice schools (Puustinen et al., 2018). Obviously, it is necessary to conduct more extensive and in-depth research that highlights critical points and obstacles to collaboration and offers constructive solutions.

A challenge facing new teachers is the discrepancy between the strong research emphasis in teacher education and the reality they encounter in their professional practice. Although Finland lacks a stipulated mentoring system, peer-group mentoring (PGM) serves as a model for supporting new teachers' entry into the profession, emphasising autonomy, that is, an independently acting teacher, and equality. In contrast to a mentor–teacher relationship, PGM is characterised by an equal relationship among participants and provides an opportunity for collective reflection on teachers' work. Although the model has proven to work well, its potential has not been fully fulfilled due to the following: (1) the lack of a national framework for how the mentoring programme should be implemented, (2) the lack of recognition of peer learning as a professional development method and (3) the unresolved compensation of employees for their time dedicated to PGM and the implementation of financing models to establish the activity on a regular basis (Tynjälä et al., 2020).

We have touched on some tension patterns in Finnish teacher education and also touched on the specific situation regarding education on Åland. As shown in this review, the critical points, although hardly described as dramatic, draw attention to vital areas that require continued improvement in the existing structure of education. Recruitment to teacher education, which has so far been a university matter, is being unified to increase equality to such an extent that it approaches a standardised admission procedure. In our review, we have highlighted both opportunities and risks that the new assumption may bring. The pace of reform follows a typical Finnish pattern, where changes are taking place slowly but thoughtfully. Few critics have questioned the relevance of teacher education that is research founded and linked to a master's degree, but a good education can always be made better.

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Chapter 6
Teacher Education in Norway

Kaare Skagen and Eyvind Elstad

Abstract The public school system in Norway was strengthened in the nineteenth century. The teaching profession became a central vocation during the nation-building process. The need for teachers with adequate qualifications was met through short-term teacher seminaries. In the twentieth century, these seminaries were improved upon and renamed 'teacher schools'. Teacher education has undergone frequent reforms in recent decades. In 1973, general three-year teacher education was introduced for primary and lower secondary teachers, existing alongside the teacher education programmes in the universities. Criticism of this three-year teacher education strengthened, and teacher education changed from a generalist education (with competence in many school subjects) to a specialist education (with competence in a few subjects). One further step was the introduction of more rigorous entry requirements for teacher education programmes for both the primary and the secondary level. Another step was a division of the former general teacher education programme into separate programmes for years 1–7 and 5–10. In 2017, these two programmes were converted into five-year master's degree programmes that are completed with a master's thesis. Universities train teachers for grades 8–13 through either a postgraduate certificate of education that takes one year to complete, or five-year master degree.

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6.1 Introduction

The first organized school in Norway was established in 1153 by a representative of the pope; cathedral schools were established at the diocesan offices in Oslo, Bergen and Hamar. The medieval bishops had their own schools to educate priests, so cities with Catholic bishops had cathedral schools and monastery schools. After the Lutheran reformation in Norway (1537), cathedral schools were transformed into so-called Latin schools, and all market towns were required to have such a school. Only a small part of the population attended Latin schools, with most of the people remaining illiterate. The introduction of an ecclesiastical confirmation in 1736 became an important prerequisite for compulsory schooling in Norway (school ordinance from 1739). Thus, the Lutheran church played a central role in the operation of schools. The priest's task was either to teach the children himself or arrange instruction for those to be confirmed. Priests selected and trained young people who were fit for this task (Dahl, 1959).

The first institutionalized teacher education in Norway were Seminarium Scholasticum and Seminarium Domesticum (and later: Seminarium Lapponicum) in Trondheim (which in the years 1717–1732 served as a seminar for the missionaries, catechists and teachers; Skjelmo, 2013). This teacher seminary was initiated by the Danish Society for promoting Christian knowledge. The purpose was to train missionaries, catechists and schoolmasters to teach the Sámi population in Finnmark.

International educational trends had impact on the establishment of teacher education in Norway. These ideas came to Norway especially via Blaagaard Seminarium in Copenhagen, a teacher education institution the Dano-Norwegian Realm established in 1791. However, few Norwegian teachers were educated at the Blaagaard Seminarium and Seminarium pædagogicum in the 1790s and beyond. After returning to Norway, they worked in Norwegian schools (; Markussen, 2005 Sigmund, 1916).

The first publicly funded teacher education in Norway began in 1826; within a few years, teacher seminaries (renamed *lærerskole* in 1902) were established throughout Norway in the 1830s and later. In 1842, the parliament (Storting) established a permanent budget for teacher education in Norway (Hommerstad, 2018). The schools were initially organized in parallel systems: schools for rural people, schools for urban citizens and schools for those aiming for higher education.

Four teacher seminaries were created in the 1830s. But the educational capacity was too small in relation to the needs: in 1860 only 38% of the teachers had their education from the teacher seminaries (Myhre, 1991). In the middle of the nineteenth century, schooling became both a right and a duty. Local authorities gained greater influence over curricula, and the school system became important for building a stronger national consciousness. The idea of changing the school system into a common school for all children, a comprehensive school system (the Norwegian term *enhetsskole* first appeared in 1913), dates to the mid-1800s. Two examples can be linked to the year 1850, when Marcus Thrane and Gustav Thaulow, respectively, suggested improvements in school provision for all children.

There were a number of improvements to the school in the latter half of the nineteenth century. A significant increase in teachers' education occurred: in 1890, almost all (96%) teachers had a teacher education (Myhre, 1991). 12% of these were female teachers. This change must be seen in the context of a number of other improvements (school buildings, textbooks, school subjects).

The evolution towards the modern school system was slow. In 1920, however, a comprehensive school decision – which was really a budget decision – was made in the Storting, which meant comprehensive, primary schooling ('enhetskole') was implemented in Norway starting in the 1921–1922 school year. This decision was of immense importance for the concept of the comprehensive school, and the decision put Norwegian education in a special position from an international perspective. In the 1930s, the model of the seven-year primary school was understood as a comprehensive school, fortified as a school model in Norway by law. Against this historical background, the purpose of this chapter is to discuss the development of teacher education for this comprehensive school system.

6.2 Teacher Education Accommodated the Comprehensive School System

From a historical perspective, three teacher education pathways exist in Norway: (1) the seminary tradition for training primary (and later lower secondary) schoolteachers; (2) an academic tradition that has equipped both lower and upper secondary school teachers with university-level qualifications; and (3) vocational teacher training with a history that builds on the apprenticeship and guild traditions. Kindergarten teacher education in Norway has also been established, and these traditions have existed side by side in separate parts of Norway's teacher education system.

From the mid-1960s onwards, the comprehensive school model has had implications for the design of teacher education. One of the main motives for the development of the comprehensive school's structure and content was the notion that school should contribute to social equality. Starting in the 1976, an undifferentiated lower secondary school became the instrument of social equalization. Teachers who were educated at universities were given the right to teach their subjects at the lower levels, but teacher seminary-educated general teachers were also provided with the competence to teach in lower secondary school.

Comprehensive school teacher education gradually became class teacher education delivered by teacher education seminaries. This educational variant was based partly on the art degree (a two-year teacher seminar for students with an upper secondary school education) and partly on the entrance examination (a four-year teacher seminar for students without upper secondary school education). A good number of teacher education programmes developed similar models, including the two years + one year + one year model. Taking the teacher examination after two years of educational studies plus one year of undergraduate studies became a

common pathway to a teaching position (Norwegian Ministry of Church and Education, 1968). A 1961 act offered the opportunity for teachers educated in seminaries to gain adjunct competence by pursuing further education. In 1970, it became possible to receive additional education by taking short study units of half a year's length. At the universities, the shortest study unit in teacher education at that time was one year of full-time studies, mainly in the humanities and social sciences (the science subjects had smaller study components that could be combined into larger units), while the teacher seminaries offered half-year units. As a result, universities lost their monopoly position on educating teachers with adjunct competence, and teachers with a solely general education were often employed instead of university graduates, especially in smaller schools (Rovde, 2004, 42 and 101–104).

In 1973, teacher seminaries became teacher education colleges offering three-year programmes. This approach to teacher education was called the general teacher education programme because it qualified teachers to teach in all school subjects throughout the primary and the lower secondary school levels. Student teachers were allowed to create their own collection of subjects, which led to many subjects central to the curriculum (e.g., mathematics and English) not being chosen.

The Norwegian Teachers' Union (*Norsk lærerlag*), which represented teachers with general teacher education, supported the extension of mandatory school to nine years and gained full admission for its members as teachers accredited to deliver instruction in all subjects in the new lower secondary schools. The Labour Party did not want the teachers from the universities to hold a dominant position in the new lower secondary stage and thus welcomed teachers from the general teacher education programme. The Norwegian Teachers' Union agreed that no specialization in any school subject should have a duration of more than six months. The Norwegian Teachers' Union's slogan – 'The unitary [comprehensive] school needs unitary teachers,' which meant teachers educated at teacher colleges – was consistent with the prevailing ideas among key school politicians in the Labour Party from the 1950s through the 1970s (Rovde, 2004, 101–104; Slagstad, 1998, 325).

At the beginning of the 1980s, the Norwegian Teachers' Union proposed that teacher education be extended to four years, which the Storting ultimately approved in 1992. Essentially, teacher education retained its general character, with many short-term study units that provided teachers with broad teaching competence. Academic specialization in the three- and the four-year models of general teacher education often meant short-term education in several subject components.

In the 1980s and 1990s and through the turn of the millennium, the number of primary applicants for the general teacher education declined (Norwegian Agency for Quality Assurance in Education [NOKUT], 2004), and the average grade level among those applicants dropped over time. The media also focused on poor academic results. The question of academic results became especially pressing after the turn of the millennium, when large-scale international surveys showed only an average level of knowledge in mathematics, science and reading literacy among Norway's lower secondary school learners. Knowledge was emphasized more strongly in an effort known as the Knowledge Promotion (which became a reform of the 10-year compulsory school and of upper secondary education and training).

Teachers' academic knowledge of their subjects was debated after the millennium. In 2004, NOKUT was commissioned to carry out an evaluation of teacher education in Norway. The expert group presented its recommendations in 2006 and concluded that the quality of teacher education varied enormously, with the lack of integration of practice, professional studies, professional didactics and educational theory a major challenge. The lack of wholeness and connection between theory and practice was evident. The report became a starting point for changing teacher education in Norway. In a 2009 parliamentary report, the name 'general teacher education' was replaced by programmes in primary and lower secondary teacher education (PLS), which was a four-year differentiated education until 2017. In this programme, teacher competence for grades 1–7 was reduced to four teaching subjects, and teacher competence for grades 5–10 would normally consist of three teaching subjects, each with a scope of 60 credits. In 2017, the government announced that a five-year master's degree programme for teachers in the compulsory school should be investigated (Norwegian Ministry of Education and Research, 2009). The term *enhetsskole* was abandoned in departmental documents in connection with the Knowledge Promotion school reform, with the term 'common school' (*fellesskole*) used instead (Thuen, 2010).

The task of an expert PLS advisory group was to evaluate the introduction of the reformed PLS teacher education between 2011 and 2015. The PLS advisory group believed that the reform had made good progress in the work on practice and professional correction but pointed out that, among other things, questions about education's research base, recruitment, dropout rates and internationalization were not addressed to a satisfactory level (Munthe & Rogne, 2015).

In 2013, after eight years of a red-green (left-leaning) government, a liberal-conservative government took over until 2021. Through an initiative called the Promotion of the Status and Quality of Teachers, this government has sought to strengthen the school-related side of teachers' formal competence. The five-year primary and lower secondary teacher education (i.e., the PLS) was elevated to the master's level in 2017. The one-year programme in educational theory and practice (the Postgraduate General Certificate of Education, consisting of 60 credits) was still offered. This programme's candidates must (with some exceptions) already hold a master's degree. The former general teacher education programme was divided into separate programmes for grades 1–7 and 5–10 to ensure specialization in three or four and two or three teaching subjects, respectively. The new five-year programme in teacher education institutions began in 2017. As reasons for the reform, several issues were noted: students' low time on task, grade inflation, inadequate recruitment and high dropout rates in the existing teacher education framework. The master's degree programme has to provide competence in academic subjects, school subjects and managing individual learners and groups of learners in learning situations. Teacher education was to integrate all these elements, and the specialization that student teachers chose assigned different weights to educational theory (*pedagogikk*), subjects and subject didactics.

With the master's supplement, the government wanted to give teachers more academic weight in their work. The master's-level education is intended to equip

student teachers with better academic, professional didactic and pedagogical competence, with the intention of strengthening their learners' learning outcomes. It should also provide greater insights into research and development (R&D) work and scientific methods, along with a greater ability to analyse and reflect on one's own practice. Work with master's theses, with their emphasis on R&D-based or 'clinical'practice training, is intended to help student teachers integrate theory and practice and make education more relevant to the actual needs of today's Norwegian schools:

> Teachers need to acquire solid, research-based skills and to have access to continued professional development within a professional learning community in order to make informed decisions in their day-to-day work in kindergartens and schools (p. 5).

An international advisory panel for primary and lower secondary teacher education conclude that the new master's programmes for PLS teacher education represent an internationally distinctive and remarkably ambitious reform based on high expectations for student teachers, for university/college-based and school-based teacher educators (NOKUT, 2020). The inspiration by Finnish teacher education (Westbury et al., 2005) is clear. Compulsory content in religion, beliefs and ethics (combined in a module equivalent to 15 credits) is intended to strengthen teacher competence in a multicultural and multireligious Norway. Additionally, everyone who graduates with a master's degree in teacher education must have professional digital skills. These are examples of modernization intentions that are to some extent ideologically driven.

For teacher education at universities, the degree reforms in 1905, 1920 and 1960 created academic frameworks with basic units like secondary/major or basic/intermediate/major (Jarning, 2013). The pattern of a lower degree with teaching competence in several subjects was predominant throughout the twentieth century. After the Joint Declaration of the European Ministers of Education (the Bologna Declaration), the old degree structure in Norway was replaced with a new, common structure with bachelor's and master's degrees, along with a PhD. The universities have thus abolished the traditional six to seven years of *Lektor* ('lecturer') education, which provided solid competence to teach in three school subjects. In today's five-year master's Lektor programmes, two school subjects are typical.

6.3 New Competence Requirements for Teachers

In 2014, specific minimum standards for teaching in Norwegian schools were introduced. Every Norwegian teacher education programme remained under national curriculum regulations. Teachers who teach central school subjects (e.g., English, mathematics or Norwegian) at grades 1–7 must have 30 credits in those subjects. At the junior level (and in upper secondary school), 60 credits are required to teach core subjects. Teachers who fulfilled the recruitment requirements before 2014 received a limited exemption from the requirements through 2025, but a new

red-green government (a coalition of the Labour Party and the Centre Party) eliminated this standard in 2022. This new government wants to "make teacher education more practical and relevant to practice and make the last year of teacher education more vocationally relevant, with more practice". At the time of writing (May 2022), this intention has not yet been realized. But some indications of a practical turn can be seen: the government has prioritized the practical and aesthetic subjects so that teachers (at the expense of teachers of mathematics, Norwegian and science) can be offered further education in these subjects. Another change is the tightening of opportunities to start private schools. In 2013–21, the number of private schools increased by almost 30%. The new government wants more austerity measures in the coming years by giving local elected representatives more influence over the approval, financing and management of private schools.

6.4 Teacher Needs, Admission Requirements and Graduate Production

In 2005 onwards, 35 school credits, along with a grade of 3 in Norwegian and mathematics from upper secondary school, was required for admission to teacher education. Admission requirements were increased 2016–2021; the grade requirement in mathematics went from grade 3 to grade 4 for applicants to teacher education programmes. An investigation (NIFU, 2021) shows that student teachers have actually completed teacher training faster since the introduction of the grade 4 requirement: more students are completing their teacher training without delay. Of the students who started primary school teacher education in 2016, 7% more completed the programme in the standard time than those who started the year before. From 2022, there are two alternative paths to teacher education. Applicants must now have at least 40 school credits and a grade of 3 in mathematics and Norwegian, or at least 35 school credits, 3 in Norwegian and 4 in mathematics. These new requirements are expected to provide more qualified applicants.

The number of first-choice applications for teacher education decreased between 2003 and 2008, increased for grades 1–7 from 2010 to 2015 and increased for grades 5 to 10 in 2010–2018. After historically high application numbers for teacher education programmes, there has been an overall decline of applicants. The grade requirement in mathematics for admission to primary and lower secondary school teacher education and students' preference for specific teacher education institutions may help explain why enrolment in teacher education has not reached full capacity. Many study places in teacher education were and remain vacant. The situation for recruitment to teacher education and the teaching profession in parts of northern Norway and to some extent in rural districts is an ongoing issue.

The total number of newly qualified teachers increased steadily from 2010 to 2015 but has been somewhat uneven since then. There was a decreasing trend 2020–2022 (Tresse, 2022). The need for primary school teachers is illustrated by

the growing number of learners in primary school. There has been a relatively stable proportion of newly qualified teachers entering the school sector in the same year as their graduation. Each year, around 6500 teachers (including daycare teachers) take their final examination in Norway and approximately 25,000 students are enrolled in teacher education at any given time. The total number of newly qualified teachers (with reservation for nuances) has increased steadily. However, the large number of dropouts (approximately 27%–40% in the different teacher education programmes) along the way poses a challenge. Despite the relatively stable proportion of primary school teachers who work in schools in the year of their graduation and the subsequent year, there is a significant dropout rate after five years in the profession. The Lektor programmes (grades 8–13) recruit student teachers with good grades from upper secondary school, but Lektor students have very low completion rates: only three out of ten student teachers complete the programme as planned (NOKUT, 2022). The number of teachers outside the teaching profession is about 30,000. About 15% of teachers in primary and lower secondary school do not have adequate teacher education, while about 21% of teachers in upper secondary education lack formal qualifications (Gosh, 2020). In the current situation, it must also be considered a teacher shortage that 21% of Norwegian lower secondary learners attend schools in which the principals answer 'to some extent' or 'much' to the question of whether the teaching situation in school is hampered by a lack of teachers or the presence of teachers of lesser quality (Hatlevik & Rohatgi, 2016).

Several factors influence future teacher needs. The Storting has adopted a maximum number of learners per teacher that will increase the demand for newly qualified teachers. Starting in fall 2019, the goal was to have a teacher for every 15 learners in grades 1–4 and a teacher for every 20 learners in grades 5–10. However, due to the teacher shortage, this teacher norm also means that teachers are moving from the outskirts to central areas. Statistics Norway (2021) calculates a teacher deficit of primary and lower secondary school teachers through 2025, but there may be a surplus of such teachers between then and 2040, with the decline in Norway's population growth the main explanation.

6.5 Training to Teach in Practice

From the beginning of teacher education in Norway in the early 1800s, state and municipal training schools were established to ensure academically sound school practice for student teachers. Most of these schools were closed during the 1980s, but there is now a strong focus on schools, often called 'university schools', for student teachers to practice, (Norwegian Ministry of Education and Research, 2017). These are designed as primary and secondary schools where qualified school-based mentors and teacher educators work closely together on practical training. A number of evaluations and research articles have pointed out that achieving a robust connection between theory and practice is challenging (e.g., Smeby & Heggen, 2014). Therefore, in recent reforms, the school practice components of teacher

education have been strengthened, as the number of days of supervised practice has been increased. Additionally, observational practice and possible contact with a practice school are included in the work on the master's thesis. Practical training is compulsory and driven by a nationally determined curriculum.

Research on student teachers' practice training is a relatively unexplored phenomenon. A systematic review of teacher education research in the 2000–2010 period shows only 23 publications on Norwegian teacher education and even fewer publications on practice training (Haugan, 2011). Only two studies have examined the contributions of teacher educators during practical training. In one such effort, Granlund (2013) states:

> Common to the subject teachers was that in the interviews they did not believe that they had received instructions from the college regarding anything special to look for during the visit, but that it was largely up to the students themselves. … This is also what I found in the study of practice training. It is individualised and left to the individual. Such training is intended both in the action and reflection model of Handal and Lauvås and in an academic training model. (pp. 168, 182).

Some studies show that many student teachers are critical of the quality of the practice aspect of their education (e.g., NOKUT, 2021), pointing out problems like inadequate supervisory competence, high workloads, scarcely relevant practical training, and poor communication among students, the workplace and the university or college. At the same time, it must be noted that many student teachers are satisfied with their practical training. Nonetheless, there is a clearly significant inconsistency among practice training arrangements.

Universities and colleges are responsible for the quality assurance of all parts of a teacher education programme, including practice. This responsibility includes ensuring that the practice component is well integrated with the programme's theory component. However, practice schools are not governed by teacher education institutions, and there can be several challenges in finding good solutions. The PLS advisory group (2015) points to 'signs that some school owners and primary schools have not taken in the consequence of PLS reform' (p. 128). The lack of collaborative arenas has also made it difficult to form R&D partnerships between practice schools and teacher education institutions. Better collaboration between schools and the teacher education sector is one of the four overarching goals of the new national strategy for quality and collaboration in teacher education (Norwegian Ministry of Education and Research, 2017). The government is contributing funds to develop partnerships between teacher education institutions and owners of primary and lower secondary schools. A national framework for such partnerships has been established, and the National Council for Teacher Education is responsible for these improvement efforts.

The Advisory Council for Teacher Education 2025 was established in connection with the national strategy Teacher Education 2025 in Norway. The Council provides professionally based analyses and recommendations for use in the follow-up of the strategy. Based on professional assessments, the Council shall provide the Government and the National Council for Teacher Education, where the parties are

represented, recommendations to achieve the goals of the national strategy Teacher Education 2025. The Council's work is grounded in the research-based and experience-based knowledge that the members have as representatives from teacher education and the education sector. As such, the Council's knowledge base is founded on the members' collective complementary knowledge and their ability to obtain and process new knowledge and experiences from the sector. The Council has claimed some principles for partnerships between instutions and practice schools (for instance, the student teachers have right to a high-quality teacher education) that should apply and is of the view that the enactment of regulations can help ensure a certain level of equality and reduce unintended disparities between teacher education programmes (Advisory Council for Teacher Education, 2020).

Each teacher education institution is now supposed to have a few partner schools that can be hubs for improvements. There, students, teachers, school-based mentors and teacher educators are supposed to test teaching and working methods that may help develop both teacher education and schools.

National authorities vary in their views of the trade-off between delegation (e.g., assigning Universities Norway [UHR]- Universities Norway, the Council for Teacher Education the responsibility for issuing the national guidelines) and state governance (e.g., national examinations in certain teacher education subjects). The authorities' strategies also illustrate the limitations of the scope of the national education policy, in which the activities of teacher education institutions, the Norwegian Association of Local and Regional Authorities (KS) and individual municipalities and schools all have an impact on the quality of teacher education. The effects of the management of practice training therefore depend on complex interactions among many actors, including state education authorities, teacher education institutions, municipalities and counties and practice schools. This trend is in line with a broad trend in the public sector. The increasing diversity and greater complexity of Norwegian society have been influenced by the strategies of individual institutions. In the complex process of 'governance' (Ansell & Torfing, 2016), the emphasis shifts from the top down to interactions among different actors and more complex organizational forms of governance. The new governance models represent the spread of power and the weakening of traditional political-administrative governance. To compensate for the lack of a national policy, Universities Norway has established the Council for Teacher Education, which is an arena for cooperation on quality development, academic division of labour and coordination among Norwegian teacher education institutions. Further, the Ministry of Education has established an Advisory Council for Teacher Education.

In future research, it will be important to understand how interactions among national education authorities, councils, teacher education institutions, school owners and schools work and how interaction patterns change. These issues will have an impact on how campus teaching and training relate to each other in the teacher education of the future.

6.6 Students' Perceptions of Study Programme Quality

A national student survey (*Studiebarometeret*) in Norway asks students about their perceptions of the educational quality of their programmes (NOKUT, 2021), and most of the country's educational variants are included. The PLS students are at least satisfied with their study programmes. However, the student teachers' assessment of the quality of their school practice indicates a wide range of responses (NOKUT, 2021). This means that some students are very satisfied, while others are quite dissatisfied. Except for the quality indicator 'attachment to working life', PLS student teachers rank the other quality indicators (teaching, feedback and mentoring, learning environment, organization, assessment forms, participation, inspiration, practice, own involvement and expectations) below or near the average of all studies. The *Studiebarometeret* is used in political debates about student quality in teacher education. In spring 2019, several politicians posed critical questions to the government about the quality of teacher education, and the survey results were a key factor in the debate (Stortinget, 2019a). This shows the importance of measurements to the public discourse on good teacher education.

6.7 Debate on the Educational Theory Subject in Teacher Education

Educational theory (*pedagogikk*) emerged as a component of teacher education in the second half of the nineteenth century and the first decades of the twentieth. In the 1930s, it became a central subject in general teacher education. In the 1890s, it was taught for only one hour every week, but in the education plan of 1938, educational theory was to take up ten hours every week in the two-year programme and nine hours every week in the four-year programme. This increase was an expression of both a new understanding of the role and function of educational theory in teacher education and the first changes in how the teacher's work was viewed. After the 1938 plan began, educational theory as a university subject was dominated by educational psychology, but through the end of the 1950s, the Norwegian teacher education curriculum defined educational theory as a composite subject in which the written examination paper could draw on one of three main topics: psychology, educational history and didactics (Harbo, 1987, 124–130; Telhaug, 2008, 77–79).

The teachers unions were the motive force behind the institution of educational theory as a new academic subject that was established at the University of Oslo. The belief that educational-psychological research could provide a basis for action among teachers in school was expressed through the hopes for more scientific-based teaching and school development. In 1934, the teachers unions demanded the rapid establishment of an educational research institute at the University of Oslo and

wanted an increase in scientific research in schools to obtain a more solid research-based foundation for school activities (Helsvig, 2005, 31–36).

Educational theory as a subject became a central tool in attempts to gain a scientific understanding of teaching and teachers' work, and theoretical and scientific knowledge was expected to have an impact on the practical activities in schools. Following the same basic ideas, the Labour Party's major school politicians justified their policy by defining school reform as 'applied science in the field of psychology and educational theory' (Slagstad, 1998, 328–332).

The belief in scientific knowledge as the foundation for teachers' work and school policy and its place in educational theory arose from the increasing influence of emerging natural science-inspired psychology. However, teacher education in Norway was characterized by tensions between subject disciplines and educational theory, especially in the 1970s. In educational theory, criticism lodged by the philosopher Hans Skjervheim gained a great deal of influence. Skjervheim criticized the dominant pedagogical research paradigm for establishing an instrumentalist perspective on both research and teaching in schools. His criticism was aimed at a research approach that he believed was too strongly characterized by science and by the attitude that defined other people as objects.

Skjervheim's alternative was a philosophical concept of dialogue that he considered basic to educational theory; the teacher's intention should be to convince students through a genuine, objective and open dialogue rather than persuading them by manipulative and rhetorical means (Gradovski, 2008). In debates among educators, Skjervheim's criticism of instrumentalism has specifically been used as an argument against working with operative knowledge in teacher education. Instead, reflection has focused on educational theory teaching and mentoring in practice teaching, while the application of ideas, concepts and thoughts in practical teaching has largely been left to the student teachers themselves (Granlund, 2013).

The Labour Party several times referred to educational research to justify its school policy, but at the same time used pragmatic considerations to realize its main instrumental goal for school reform; namely, that schools should contribute to social equality (Helsvig, 2005, 78–85; Rovde, 2004, 42–44). The instrumentalist motive has remained relevant in recent years; in spring 2019, four Labour Party politicians proposed that the government should promote 'a good national system for sharing quality-assured and research-based teaching and learning programmes for student teachers' (Stortinget, 2019a). Similar ideas about research-based foundations for the exercise of the teaching profession can also be found in the KS's strategy (, 2013); it has argued for introducing a 'common teaching repertoire'. In other words, the question of a research-based foundation for student teacher training in practice and for pursuing the teaching profession is far from settled. As of this writing, national solutions for access to open learning resources across higher education institutions are being explored. The Digital Learning Resources service has offered to document, store, share and publish digital learning resources for educators in higher education, and a working group under the auspices of UHR-Teacher Education is preparing a knowledge portal for Norwegian teacher education that

will facilitate systematic, knowledge-based experience sharing (Nybø, 2019). Furthermore, the Organisation for Economic Co-operation and Development (OECD, 2019) will establish a global video library dedicated to teaching called Global Teaching InSights.

6.8 The Heyday of Progressive Pedagogy

Academically trained educators with university degrees in educational theory took over key management positions in the Norwegian school system. At the national, regional and local levels, a learner-oriented, anti-authoritarian and psychologically based educational theory took on the role of a knowledge regime with attachments to both the institutional structures in the school system and educational theory as a professional subject in teacher education (Telhaug, 2008, 115–132).

In the heyday of neo-radical pedagogy, a network of schoolchildren and educators was committed to pushing through the new principles of teaching and school development. The dissemination of the new educational theory passed from expert councils and school administrators to the municipalities, which built up educational mentoring services that worked in the same spirit. Key people in the Norwegian Teachers' Union (which represented primary school teachers) announced their preference for the new anti-authoritarian educational theory. For example, its member magazine quoted the Labour Party politician and former chairman of the Research Council, Hjalmar Seim, as saying that teachers should no longer be subject-matter experts but 'supervisors for children and youth' (Rovde, 2004, 95). The union's leaders argued that the social side of education was more important than academic achievement (Rovde, 2004, 108).

6.9 Educational Theory Subject in Teacher Education

During the 1973 teacher education programme reforms, practice training became closely linked to educational theory, with educational theory and practice jointly accounting for one-third of the total time spent by student teachers on their education. In the 1980s and the 1990s, the Norwegian Teachers' Union and pedagogical subject expertise lost significant influence on reform work within schools and teacher education. The expert councils in departments disappeared during the 1990s. With the 1992 reform, teacher training was extended to four years. At the same time, educational theory expanded to 30 credits, while subject studies also gained more space in the curriculum. Under the 2010 reform, educational theory increased to 60 credits while broad profession-oriented assignments were combined under the new 'educational theory and learner knowledge' subject. The coordinating function of educational theory was emphasized in national governing documents.

There are several reasons why political and professional reforms have focused on educational theory. There is a tension between leading politicians' and academic communities' views on the role of teachers and teaching. Since the 1990s, national policy documents have pointed to the knowledgeable and didactically competent teacher as key to creating the ideal school, and policy documents related to recent reforms in teacher education also highlight each teacher's importance for student learning and school development (Norwegian Ministry of Education and Research, 2014).

Researchers have described educational theory in teacher education as having an unclear scope as an academic, research-oriented subject with a foothold in university studies, in contrast to the neo-radical educational theory that argues for the teacher's supposed role, to a greater extent than was traditional, as facilitator and organiser (NOKUT, 2006). Historically, educational theory has not found a unifying profile as either a scientific discipline or professional subject with a clear relevance to teaching in school. The educational theory course was ambiguous and lacked a unifying professional orientation. An examination of the curricula for educational theory in general teacher education showed great variations in the knowledge base. At the same time, general teacher education did not sufficiently thematise operational knowledge to ensure that students received a good introduction to the teaching profession (NOKUT, 2006). Educational theory has become a professional middle ground without an adequate foothold in didactic professional traditions that are able to combine teaching knowledge and professional training with relevant research (Fossøy & Sataøen, 2010; Haug, 2008; Hjardemaal, 2009; Skagen, 2010; Telhaug, 2008, 85–94).

The new teacher education programmes for primary and lower secondary schools and the subsequently adopted master's degree programme envision a new place for educational theory as an academic subject, but there is as yet no comprehensive research on how the various institutions have designed the new view of the teaching profession in their study programmes.

6.10 The Evolution of Subject Didactics

In the early variants of teacher education, a schism emerged between educational theory and the academic subjects, which was reflected in both structure and content. However, a combination of subject knowledge and operational knowledge developed over the years in the teacher education colleges and the universities offering the Postgraduate General Certificate of Education, while educational theory concentrated on theoretical issues. From 1973 onwards, subject methodology was replaced by subject didactics (*Fagdidaktikk*) as a study topic. Subject didactics is associated with the German term *Didaktik*, which focuses on what should be taught and learned, how to do so and for what purpose (Gundem, 1998). Subject didactics relate to a particular subject area. Subject didactics entered general teacher education in the 1974 curriculum in a revision of methodological training. The key people

in this process were Trond Ålvik, Bjørg Gundem, Svein Sjøberg and Stieg Mellin-Olsen (all professors of subject didactics). During the same period, subject didactics entered the universities' teacher education programmes (Skagen & Tiller, 1983). Over time, subject didactics has grown as both a teacher education subject and an object of research.

6.11 Mentoring Scheme for Newly Qualified Teachers

Several studies in international research divide teacher qualification in three different phases: education, induction and continuing education. From this perspective, the Norwegian authorities have traditionally focused on the first phase, although the mentoring scheme has been strengthened and resources for continuing education have increased in recent years. Nonetheless, much remains to be done before the mentoring system for newly hired teachers will have a systematic academic foundation nationwide consistency.

A mentoring pilot project for newly qualified teachers began in 1997, with a full-fledged mentoring scheme established in 2003. In February 2009, the Ministry of Education and KS signed a letter of intent to guide newly qualified schoolteachers and kindergarten teachers. The 2014 agreement between the ministry and KS on quality development in kindergarten and basic education contains a point about the mentoring scheme, which has also been strengthened in connection with the master's degree reform. An evaluation of the scheme shows that many teachers experience a 'practice shock' in their transition from education to the profession; 74% of supervisors and 59% of newly qualified teachers under the mentoring scheme agreed that the transition was so demanding that it could be called a 'shock' (Rambøll., 2016). Graduates who received mentoring in school were more satisfied with their initial time as teachers than graduates who did not receive mentoring, but the two groups reported no significant differences in their sense of mastery or in their views about remaining in the profession.

Evaluation reports have noted that newly qualified teachers are satisfied with reflective discussions in mentoring, but at the same time, they believe that reflection sessions do not increase their mastery of classroom situations to any significant extent. Much mentoring is based on the new graduates' self-reports, and the supervisors largely leave it to the graduates to set the agenda for the mentoring process, even though new teachers report that it is difficult for them to determine the content of the mentoring. Research has shown that mentoring programmes where responsibility is shifted to students or new employees do not always promote increased reflection (Rambøll., 2016; Skagen, 2010). The scope of supervision is, however, increasing, with graduates reporting that guidance as useful (Rambøll, 2020).

The 2018 Teaching and Learning International Survey (TALIS) shows that only one in four teachers with five or fewer years of experience reported participating in an introductory programme as beginning teachers in school, and only one in six newly qualified teachers has the support of a mentor. The current regulations impose

no obligation on school owners to provide mentoring to newly hired teachers; they also do not grant newly appointed teachers any right to mentoring. At the same time, the transition from student life to pursuing and adjusting to a teaching job is still perceived by many new graduates as demanding (Throndsen et al., 2019). The problem of relatively few newly qualified teachers receiving adequate follow-up has not yet been solved.

6.12 From Intentions to Realization

There is a widespread opinion among many participants in the public debate that Norwegian teacher education is not of sufficient quality. However, teacher education has struggled to be considered a good education as long as it has existed. The main points of criticism have included a lack of alignment between the theoretical knowledge provided in seminaries, universities and colleges and practical training in schools, due to the limited practical relevance of theoretical knowledge and the lack of internal connections. The frequent reforms have not addressed the challenges of education in any significant way. Norwegian education authorities have set bold and transformative goals for PLS teacher education: "A main aim of the strategy is to unite and mobilise everyone involved in teacher education" (Norwegian Ministry of Education and Research, 2018, 5). A central measure in the strategy is to establish partnerships between teacher education programmes and school owners in order to create teacher education schools. One goal is to integrate enhanced knowledge and research competency with inquiry-rich, school-based experiences to create a permanent professionally-oriented teaching force. Another aspect is the extension of teacher education for primary and lower secondary education to the 5-year integrated master's level. This endeavour has secured good framework conditions, but some challenges are related to conditions where solutions are not easy to find, including the waning attractiveness and status of the teaching profession and insufficient funding (NOKUT, 2020).

Consideration of a sufficient number of trained teachers is important for politicians: In a June 2019 Storting debate, some representatives thought it urgent to take effective steps to ensure that Norway would have enough teachers in the future. They wanted to improve teacher education by fixing the number of teachers required for the future (Stortinget, 2019b). Labour representatives insisted that 'a strengthening effort is needed for a better teacher education', which included not going out of their way to request stronger state governance of the educational institutions. A majority of representatives and the incumbent government reject detailed regulations, pointing to 'the continuous, ongoing work', stating that 'the sector takes responsibility and even continually strives for improvements and innovation in education' (Nybø, 2019). The then Ministry of Education held meetings with representatives of universities and colleges regarding clear expectations and a partnership strategy between teacher education and schools: 'Such a model allows for a closer link between what happens in campus teaching and what happens in partner schools,

even beyond the mandatory practical periods'. As of this writing (May 2022), a new government rules. Only future research will reveal whether these expectations are being met and whether the policy will be changed.

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Chapter 7
Teacher Education in Denmark

Lis Madsen and Elsebeth Jensen

Abstract One recurrent feature of the four-year Danish teacher education programme at university colleges is the challenge of attracting and retaining qualified student teachers. Many changes have been implemented to address this and other challenges. To gain a better understanding of the developments from the recent reforms and the subsequent solutions to educational issues, the authors of this chapter examine the various teacher education laws written during this period. The purpose is to explore changes in Danish teacher education, primarily after the turn of the millennium. The main trends are (1) a more profession-oriented teacher education and (2) an increased focus on academic subjects, reflected in the demand for a stronger knowledge base throughout teacher education. However, the development of Danish teacher education must also be viewed in light of several major national and international societal changes. Several areas of teacher education are intended to be developed in the coming years, including improvements in teaching methods in teacher education, better collaboration with practice schools, improvements in student teachers' opportunities for in-depth studies in subject areas, and a renewed focus on *Bildung* in education and teacher education.

7.1 Introduction

The development of Danish teacher education cannot be understood in isolation but must be viewed in light of several major national and international societal changes. In this chapter, we focus on the changes in Danish teacher education, primarily after the turn of the millennium. These changes are part of a long historical development,

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and in many ways, they reflect trends that are also seen in other countries. Educational policy development is described elsewhere in this edited volume, so we touch upon this aspect only briefly. First, we examine the characteristics of the changes in Danish teacher education effected through recent reforms. One recurrent feature in several Nordic countries is the challenge of attracting and retaining qualified student teachers. We therefore highlight the enrolment and retention challenges over several years, along with the political initiatives for the past two reforms to address these challenges. Finally, we investigate the current situation and discuss possible further steps.

7.2 The External Framework for Teacher Education

Chapters 1 and 2 present several issues of major importance for the development of teacher education in Nordic countries. In Denmark, it is crucial that education policy has become 'highly political' and is perceived as central to the country's competitiveness in the global market. In this context, international assessments and comparisons have become key factors for understanding which countries have exemplary education systems and which have inadequate systems. Political demands for uniformity expressed in the Bologna Process with the introduction of a European qualification framework had a decisive influence on the development of teacher education in Denmark. New measures included the common European Credit Transfer and Accumulation System (ECTS) from 2001, which emphasized management according to clear and measurable objectives and a focus on output rather than outcomes.

Over the past 30 years, the Teacher Education Act has been amended four times: in 1991, 1997, 2006 and 2012 (with subsequent implementations in 1992, 1998, 2007 and 2013, respectively). During the same period, the Act on the Folkeskole, covering Danish primary and lower secondary schools, underwent major changes in 1993, 2003, 2006 and 2014, and in this area, there were several major and minor adjustments at the executive order level as well.

These frequent reforms of teacher education have been part of a major reform of the public sector in Denmark since the beginning of the 2000s. Thus, they are not special to teacher education but can be regarded as indicators of the major changes that characterise the public sector, which is currently being reinvented (as discussed by Pedersen et al., 2008). To gain a better understanding of the developments during the recent reforms and the subsequent solutions to educational issues, we will examine the content of the various teacher education laws during this period more closely.

7.3 The Struggle for the Professional and Educational Content of Teacher Education

The issue of what teacher education should comprise is reflected in the tension between the academic mission and the professional mission. Since 1930, teacher education has had a four-year duration but has changed from a teacher training college programme to a professional bachelor's degree (2000) for primary and lower secondary school teachers. In parallel with this development at the structural level, a similar development has occurred in the content areas. The two developmental strings are interrelated in that they both entail a shift to a more academic orientation and a clearer professional line of education. A review of the past four laws clearly shows that education has been evolving and that the various reforms can be viewed as steps in this constant process of change.

Denmark participated in the first large international literacy survey in 1991. Politicians lost their confidence in schools, as Denmark unexpectedly received a rating very close to the bottom, whereas the other Nordic countries were at the top. The author, Mejding (1994), aptly called the survey *Den grimme ælling og svanerne* (*The Ugly Duckling and the Swans*). Since then, politicians have paid close attention to schools' national and international evaluations and comparisons to document the extent to which they deliver the quality and standards of education required. Over the same period, an overhaul of teacher education has also been underway, motivated by the assumption that if learners fail in literacy and numeracy, something might also be wrong with teacher education. In particular, the reforms have focused on three key issues:

1. Should a teacher primarily be a generalist who is competent in many school subjects or a specialist who can teach only a few subjects?
2. What is the range of teaching practice in teacher education? What is the proper ratio between theory and practice in student teachers' professional development?
3. What is the proper ratio between academic school subjects and pedagogical subjects (general teaching qualifications)?

However, this is not a straightforward account of the reforms or changes that are explicitly based on research knowledge of teaching skills. Rather, it is a study of different notions of what it takes to educate qualified teachers (e.g. whether to focus on school subjects or on teaching pedagogy in general). The reforms clearly reflect different political attitudes towards the requirements for qualified teachers. This means that the various reforms have been characterised by political compromises instead of a settled pedagogical approach. Moreover, they have primarily emphasised structural and academic content elements rather than pedagogical changes in teaching and work methods. Below, we take a closer look at how the three issues have been weighted in recent reforms.

7.4 The Teacher as a Generalist (with Teaching Competence in Many School Subjects) or a Specialist (with Teaching Competence in a Few Subjects)?

In the late 1990s, there was a shift in views on whether curriculum of teacher education should be broad or deep, basic or specialised. Until 1997, teachers were trained as unit teachers who could teach various subjects at the primary school level and two subjects in lower secondary school. Teacher training was divided into two parts: a basic part and a specialisation part. In the basic part, student teachers took a number of basic subjects, which qualified them to teach primary school classes. In the specialisation part, they took two majors, which qualified them for lower secondary education. With the 1997 Act, a break with the former unit schoolteacher concept occurred, with student teachers taking four school subjects named majors but no subjects for primary school.

With the 2007 reform, the number of majors was reduced to two or three (typically two). In 2013, the number of majors remained the same, but with a shift towards qualifying in three subjects. With the 2007 Act, grade specification was introduced in the two majors (Danish and mathematics), and in 2013, it was expanded to include English and sports. This development can be considered an example of the change in views on teacher and teaching skills and as part of a shift towards increased specialisation and a more academic orientation in teacher education.

7.5 Teaching Practice and the Role of the Profession in Teacher Education

The proportion of practice in teacher education has not changed considerably in the past four teacher education laws. The duration of internships has been approximately half a year's work (30 ECTS), divided into three to four internship periods. Despite this steady theory-to-practice ratio, there have been changes in internship placements, the length of individual obligatory practice periods and the interrelation between academic school subjects, pedagogical subjects and internships.

With the most recent amendment of the teacher education programme in 2013, internships received a boost, not in proportion but in formal requirements, namely the introduction of final teaching practice exams after all internship periods. In addition to teaching practice in all modules, practice tasks must be included in the curriculum of each module. Such tasks can be anything from observation of classes taught by professional teachers to student teachers practising their own academic subjects in schools or participating in specific school activities. Thus, there is now a sharper focus on various opportunities for student teachers to perform teaching practice tasks throughout their education and, therefore, on increased collaboration with schools, even though the internships have not been extended.

7.6 Basic Subjects: The Pedagogical Area

In the 1991 law, the pedagogical field was weighted to comprise approximately an entire year's studies. This was almost halved in the 1997 law and then adjusted in 2007 and again slightly more in 2013. However, it is more important to examine the content of the subject area than its scope. Before examining the shifts in various laws, we will take a brief look at the pedagogical subject area of teacher education as a whole. Over time, it has been difficult to determine a concise content and knowledge base for this area. Several issues have been the subject of constant debate: Should it preferably consist of philosophical and ethical approaches to learners' upbringing and general formation? Should it include political and sociological analyses of the school's function in society? Should it introduce psychological issues related to children's general development and various learning theories? Should it primarily comprise pedagogical approaches and methods for effective teaching?

In his PhD dissertation, Hans Harryson asks, 'What is the purpose of the pedagogical subjects in teacher education in the 2010s? How do the pedagogical subjects contribute to the development of student teachers' teaching competences?' (2018, p. 17; translated by the authors). The questions are examined, among other ways, through a comparative analysis of the subject area in Denmark, Norway and Iceland. Although it is impossible to present an in-depth discussion of all the results here, we would like to emphasise that we are far from finding a clear answer regarding the content and purpose of the pedagogical subject area. Teacher educators view it primarily as a theoretical subject which should preferably keep some distance from practice (p. 198), whereas student teachers mainly expect to acquire tools and methodologies that they can use in practice. Another interesting result is that, to a great extent, both student teachers and teacher educators see the justification of the subject area as 'closely linked to (1) the inadequacy of the academic subjects and (2) the inadequacy of teaching practice' (p. 191). According to Harryson (2018), it remains somewhat unclear what the subject teachers' purpose and content are. Teacher educators use words and phrases such as the following: 'The subject area helps shape the student teachers', 'DNA, backbone, identity', 'Professional maturation', 'Professional vocabulary', 'Grasp of the profession', and 'Student teachers' ability to view teaching and learning in nuanced ways and from different perspectives' (p. 203).

Harryson's thesis (2018, p. 45) shows that: (1) There are few (and scattered) studies focusing on pedagogical subjects in teacher education, (2) There are even fewer studies focusing on pedagogical subjects in integrated teacher education, and (3) Most available studies are based on educational psychology and not on other 'non-specific courses' (Lohse-Bossenz et al., 2013, p. 546).

Just as it has been difficult to grasp and clearly define the pedagogical subject areas, it has also been difficult to clearly define the subject area's knowledge base. These difficulties have been a recurring theme in the recent changes to the subject area. The greatest change took place between the 2006 Act and the 2013 Executive

Order, namely the replacement of traditional subject pedagogy, psychology and general methodology. The teacher's foundational competences are subdivided into two clusters: 'Pedagogy and the teaching profession' and 'General education'. 'Pedagogy and the teaching profession' consists of four areas of competence: (1) pupils' learning and development, (2) general teaching proficiency, (3) special needs and remedial training, and (4) Danish as a second language. The other cluster, 'General education' ('almen dannelse' in Danish) consists of the study of Christianity/philosophy of life/citizenship and prepares student teachers to implement the mission statement of the Danish school system: to develop professional ethics and deal with complex challenges in the teaching profession in the context of cultural, value-based and religious pluralism.

The shift to a competence–goal orientation in school practice has challenged the Danish pedagogical field, which has been characterised by a tradition of philosophical–analytical and sociological–critical perspectives on school and teaching and a lesser emphasis on student teachers' specific competence development in relation to the teacher's work. For example, a comparative analysis of the content of teacher education programmes in Canada, Denmark, Finland and Singapore found that normative philosophical literature was considerably more prominent in Denmark than in the other countries (Rasmussen et al., 2010).

With each amendment of the law, there have been new and more time-consuming problems for any new teacher education to solve. Along with the aforementioned shift to a more academic orientation, teacher education has become increasingly oriented towards the profession. In the majors, and subsequently in the teaching subjects, methodology has increasingly become an integral part of the academic subjects, which have moved away from being mini university studies. The 1992 Act on teacher education primarily focused on theoretical and analytical approaches to education. In the subsequent changes, the future profession of the student teachers gradually came into focus. In 2007, as a concrete result of this movement, a compulsory pedagogical element was introduced into the academic majors. As mentioned above, the 2013 Executive Order also requires continuous collaboration with schools for school practice in all disciplines. At the same time, there has been a shift from content-driven to goal-driven education in terms of the competencies that a qualified teacher needs.

7.7 Enrolment in Teacher Education

During the period in question, it has been challenging to attract the most talented students to teacher education and to reduce the dropout rate. Furthermore, there has been a shortage of qualified teachers during some years. Currently (2022), 10–17% of the permanent teachers in Danish schools do not go through the regular teacher education channel. In 2002, people with different degrees and work experiences were given the opportunity to qualify as teachers in a shorter time by pursuing merit teacher education. Initially, there was great concern about this new type of

schoolteacher, not least on the part of The Danish Union of Teachers. However, merit teacher education has now a good reputation. Merit teachers are older when they graduate than those with an ordinary teacher education and have experience from other areas, which they bring into the school. Merit teacher education does not lead to a professional bachelor's degree but is supplementary education of 150 ECTS, pursued under the Law on Open Education. The programme consists of academic and pedagogical subjects and an internship period of 10 ECTS. The number of applicants has varied over time. During periods of teacher shortages, political pressure to train more merit teachers has intensified. For instance, there is currently strong political interest in recruiting more people to become merit teachers (for instance, by developing attractive education models that combine studies and employment). However, merit teacher education can reduce but not solve the enrolment problem.

Ordinary teacher education is dimensioned to ensure (among other things) a balance between training sites and a balance of teacher education located in urban and rural areas. However, at the national level, the required dimensions have not been achieved, and few university colleges (in Danish: professionshøjskoler) have had more applicants than could be admitted. To meet the challenge of attracting the best students and reducing the dropout rate, the past two reforms have paid attention to tightening the teacher education admission requirements.

7.8 Admission Requirements

With the 2007 reform, changes to the admission requirements for teacher education courses were introduced despite problems with enrolment. The then-Minister of Education, Bertel Haarder, argued that the reform might initially lead to a decline in the number of applicants but would make teacher education more attractive in the long term. One admission requirement was linked to the academic majors, not to the pedagogical subjects. There were also requirements for a minimum grade in a particular subject in upper secondary school to take the corresponding academic subject in teacher education programmes. For example, to take Danish literature and language, a student should have an A-level grade of 7 in that subject. (A-level is the highest secondary school level, and 7 is an average grade on a 7-step scale from −3 to 12).

The most recent reform of 2013 was still aimed at raising the admission level, but this time, the requirement was changed to a grade of 7 as the minimum average of the total upper secondary school grades. Students who do not have an average grade of 7 can apply for admission in 'quota 2' and be admitted through an admission interview. The admission interviews drew inspiration (among others) from the University of Southern Denmark and the so-called multiple mini-interview concept, in which the applicants visit two stations as part of the admission interview. The applicants are tested qualitatively, and the interviewers assess their answers in

six content domains: motivation, ethical ability, cooperative ability and integrity, communicative ability, cognitive ability, and text comprehension and word processing.

An evaluation of the admission interviews by the Danish Evaluation Institute (2013) drew the following overall conclusions:

1. The dropout rate among those admitted through quota 2 has fallen slightly.
2. The average grade for admitted students has risen, and more students with high grades are recruited and retained than before.
3. There is a significant inverse correlation between the content domain of motivation and the likelihood of a student dropping out.

Another evaluation of the admission interviews (The Danish Evaluation Institute, 2017, p. 5) draws these conclusions:

1. The admission interviews have helped reduce the dropout rate among students admitted via quota 2.
2. Of the six interview content domains, only motivation indicates the probability of a student dropping out with some certainty.
3. Following the introduction of admission interviews as part of the new quota 2 admission requirements in 2013, students with high grades have increasingly been recruited and retained.

After the introduction of the new admission system in 2013, nationwide intake decreased by approximately 25% but subsequently rose again. In 2012, 3660 students enrolled nationally. In 2013, the number dropped to 2936. Later the number of applicants increased, but not since 2014 have so few applied for teacher education via quota 2 as in 2022. Compared to 2021, 17% fewer have applied for teacher education (Bjerril, 2022). Although the introduction of the new admission system cannot fully explain the decline, it has certainly been a contributing factor. For example, we find that some applicants do not show up for the interviews. One of the reasons for the introduction of the new admission system was the assumption that better and more competent students would mean better retention. However, this assumption has been supported only partially (see the next section).

7.9 Dropout from Teacher Education Programmes

The dropout rate in teacher education remains high. Moreover, it remains high throughout the course of teacher education, whereas in other professional programmes, it falls significantly after the first year. The reasons for dropping out vary widely among students, and it is rarely possible to identify a decisive factor. However, a study conducted by the Danish Evaluation Institute (2013) found slightly different reasons for dropping out of teacher education programmes depending on when students chose to drop out. Early dropouts cited a wide variety of reasons, such as poor introductory courses, lack of knowledge about the education provided,

parallel employment and distance to the educational institutions. For late dropouts, the distance to practice schools and the perceived low academic level appeared to be important factors.

7.10 Current Status of Teacher Education in Denmark

The discussion about teacher education has been ongoing for a long time but has intensified with the recent reforms. One of the problems is politicians' disagreements over what kind of education they want. This means that laws and regulations are the result of compromises between competing goals (e.g. more or fewer academic subjects or pedagogical subjects). The rationale behind the teacher education reform of 2007 was the desire for in-depth academic studies, especially in the major school subjects (mathematics and Danish) and science. At the same time, there was a recognition of the sharp difference between teaching primary and lower secondary school classes. This difference led to the division of the major subjects into two levels so that they became broader in scope. An evaluation of the 2007 reform by a follow-up group (The Danish Evaluation Institute, 2011) identified several strengths (e.g. the in-depth academic studies) and weaknesses (e.g. a lack of opportunities for internationalisation). Although the group's criticism was not particularly harsh, a new reform followed in 2013.

The 2013 reform marked a new break in several areas and is perhaps best understood in light of international calls for governance according to competence goals and a modular structure, as was known from other educational programmes in Denmark and abroad. At the same time, the shift towards more profession-oriented education initiated with the 2007 reform continued. Moreover, the trend towards an increased focus on academic subjects (which started in 2001, when formal education became a professional bachelor's degree programme) was strongly reflected in the demand for a stronger knowledge base throughout the programme.

Interestingly, neither the evaluation of the 2007 reform nor that of the 2013 reform identified challenges in education sufficiently serious to call for major revisions. Nevertheless, the teacher education programme introduced in 2013 broke with previous programmes in essential areas. An expert group's evaluation of the 2013 reform (Danish Agency for Higher Education and Science, 2018) highlighted five strengths and three weaknesses. The general conclusion was: 'Teacher education is thus well underway but will require continued development in several areas to ensure that, as a whole, it lives up to the goals of high quality and clear relevance to the Danish school' (p. 10, translated by the authors).

Despite the predominantly positive evaluations, there is general dissatisfaction with teacher education, both among politicians and more broadly in the public debate. In March 2019, the government formed a commission whose mission is to look fundamentally at whether Danish teacher education is appropriately structured, has a sufficiently high professional level and whether teacher education is otherwise

in line with and follows international developments. The goal was for Denmark to have a long-term sustainable teacher education. Teachers should obtain a strong academic and methodological foundation to both deliver high-quality education and be equipped to apply and evaluate new approaches and methods in line with the development of the primary and lower secondary school in Denmark. Further, the government declared that it is not necessary to make amendments according to the changing trends in primary and lower secondary school (The Danish Ministry of Higher Education and Science, 2019). This complex mission reflects the dual focus on academic subjects and professionalism that has become increasingly pronounced throughout the recent reforms.

In summer 2019, there was a change in government, the new government dissolved the commission before it began its work. However, the new government started in 2020 a revision of teacher education. The focus is on development within the frame of a four-year bachelor's degree:

The government has a high level of ambition for teacher education in Denmark. There are a number of challenges that must be taken care of to make sure that teacher education will attract more talented and motivated students from all over the country. At the same time, it is necessary to develop concrete solutions in order to ensure better coherence and a higher professional level. It is also important to push students to study harder and establish a closer connection with practice in schools. Based on this, the government is starting a process of development in order to rethink teacher education (The Danish Ministry of Higher Education and Science, 2020).

The development work was centred on three main themes:

- Strengthened practice training and connection to practice.
- Increased study intensity, better professional progression, and a better retention and enrolment
- Stronger knowledge base for teacher education.

7.11 What Will the Next Steps Be?

The current political discussions partly concern the duration of education. The discussion on the level of education (Bachelor's degree or Master's degree) has more or less been put on hold, and the focus is now on how to make teacher education more oriented towards the profession. The debate is taking place on many levels and in many contexts, and politicians, professionals, unions, universities and university colleges are contributing their own perspectives. A development group consisted of members from the University Colleges Denmark, The Danish Union of Teachers and their students' organisation and KL - Local Government Denmark. This group has finished their work (The development group for teacher education, 2021). The development group for teacher education (2021) delivered its recommendations in November 2021, and the headlines are:

- A more ambitious and professional demanding teacher education.
- Extended and integrated internships and more exercise-based studies. The intention is to strengthen the coherence between the campus teaching and mentoring in the practice schools.
- A renewed focus on so-called *Bildung* ('dannelse' or self-formation) in education and teacher education.
- A teacher education with strong progression and coherence, which will ensure more professional teachers.
- A reduction in the number of goals, and another way of formulating goals, so there will be more open frames to ensure local engagement and different profiles.

Since November 2021, The Danish Ministry of Higher Education and Science has held meetings with the political parties about central themes, but when this is written (May 2022) negotiations have not started. Meanwhile, there are also political discussions about raising the funding of teacher education to increase student teachers' time on task. There will be no new teacher education programme in 2022, but perhaps in 2023.

We are in the middle of a particularly important process: We have the chance to develop teacher education in various ways, and hopefully, we will be given the freedom, as professionals, to realise it in everyday practice. In our opinion, there is no contradiction between the academic and the profession-oriented content; on the contrary, the two areas must go hand in hand. With the last two reforms, we have seen the contours of an education that is finding its own professionalism and identity. Nonetheless, we have not yet reached the target. Several areas should be developed in the coming years, and there is a need to conduct research and develop a teacher education pedagogy that addresses the specific task of educating adults to teach children.

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1. *Teaching and study methods in teacher education (on campus and in internships).* Teaching and studying in teacher education are subject to the so-called double pedagogic gaze or second-order pedagogy (see, e.g., Goodwin & Kosnik, 2013), where students learn to teach others through teaching. Situated learning processes are of particular importance because of the immediate comparison between being taught as a student and being taught to teach. Thus, teaching in

teacher education must be exemplary in the sense that teachers and students must be able to reflect, justify and often show in practice the connection between teaching aims, content and work methods. Therefore, a wide variety of work methods must be developed. Student teachers should not only become observant, reflective practitioners who can collect data and work empirically to develop their own practice (cf. the more research-oriented and academic competencies). Student teachers should also acquire and practise skills to deal with conflicts and facilitate diverse dialogues ranging from professional academic discussions in class to communication on pupils' well-being at parent meetings (the more immediate practice and profession-oriented skills). University Colleges Denmark have formulated 10 ambitions for better teacher education. The tenth ambition focuses on 'teacher education as a development laboratory'. (University Colleges Denmark, 2018).

2. *Collaboration with practice schools.* Many studies (e.g. Darling-Hammond & Baratz-Snowden, 2005) have shown that continuous collaboration and exchange between theoretical studies and a given professional practice offer considerable benefits. The 2013 reform has increased our focus on this aim, and we have made significant progress, but some aspects are still missing. We may need to further develop the internship model and ensure qualified internship counsellors to enhance both benefits and quality. Moreover, we need to develop a more diverse continuous collaboration with practice schools. This collaboration can be developed into short courses, such as teaching in a given grade for one or more days after careful preparation. The student teacher can later consider and process the teaching in collaboration with both the school teacher and the teacher educator. The collaboration with practice schools can also be developed into longer courses—for example, each student teacher can be assigned to a class during a year (e.g. for English) and provide feedback on the pupils' written assignments, while the school teacher and the teacher educator can provide the student teacher with feedback on his/her feedback.

In Denmark, although internships in teacher education are also viewed as integrated, in most cases, they have taken place as long-term (e.g. six-week) courses only in practice schools. Therefore, integration primarily takes place in the preparation and post-processing phases in collaboration between campus and school. We believe that this is an important area for development to strengthen cooperation between schools and teacher education through the development of even better internship models and models for integrated practice and collaboration.

3. *Students' opportunities for in-depth studies in subject areas (both teaching subjects and basic pedagogical subjects), including strengthened collaboration regarding academic subjects, the pedagogical field and internships.* In a highly specialised education with many subjects and modules, there is a need to develop models that enable students to immerse themselves in specific subject areas. It is also important to ensure collaboration regarding academic subjects, the pedagogical field and practice, since, for example, the integration of classroom

management and inclusion strategies in academic subjects provides better opportunities for student teachers to apply it in practice (see, e.g., Hedegaard-Sørensen & Grumløse, 2016).
4. *A renewed focus on so-called Bildung ('dannelse' or self-formation) in education and teacher education.*

To increase enrolment in teacher education, continued effort is needed not only to enhance teacher status but also to develop clear career paths for teachers. Moreover, to retain qualified teachers, work must be done on transitional arrangements to ensure good jobs for new teachers (see, e.g., Lunde et al., 2017). Unfortunately, there are no formal requirements for teacher induction programmes in Denmark. The frequent reforms, along with the fact that the evaluations of the two most recent programmes did not identify alarming issues, indicate that the reforms must (also) be viewed in a broader context as expressions of general developments in society. From one point of view, the globalisation and international trends together with the need for European standards, call for development, while from the another point of view, there is a political need for immediate action.

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Chapter 8
Five-Year Teacher Education for Compulsory School in Iceland: Retreat from Research-Based to Practice-Oriented Teacher Education?

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Abstract In 2008 the teacher education in Iceland was extended from a three-year bachelor program to a five-year program, ending with a master's degree. The intention was to give teacher education more solid research base, manifested in a 30 ECTS master's thesis while simultaneously strengthening the link between theory, research, and practice.

Pursuant to the extension, enrolment in teacher education dropped, students' progress was slow, and the dropout rate rose. At the same time large cohorts of teachers retired and shortage of teachers became a problem which led schools to recruit student teachers before they had finished their degree. This situation led to even slower progress in student teachers' studies and fewer new licenced teachers each year.

To reverse this development, several measures were introduced in the years 2017–2019, involving teacher education institutions, municipalities, the teachers' union, and the government. Among them was to make the master's thesis optional and to offer student teachers paid internship during their final year. The measures have benefitted both the recruitment and study progress. Without the masters' thesis, however, the balance between research and practice seems to have tilted in favour of practice, which raises questions about the quality and status of teacher education.

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8.1 Introduction

A new act on teacher education was adopted in Parliament in June 2019 (Act No 95/, 2019 on the Education, Competence and Employment of Teachers and Heads of Compulsory, Lower Secondary and Upper Secondary Schools). The act was passed in a situation where a serious shortage of teachers in the compulsory schools was imminent. In preschools, a constant teacher shortage had been a problem for a long time.

The structure of the present five-year teacher education in Iceland goes back to a reform in 2008, when the then-three-year B.Ed. teacher education was extended to a five-year program ending with master's degree. The need to extend teacher education beyond three years had been discussed already in the 1980s. There was a common understanding among stakeholders that the teaching profession had become more complicated and increased demands were being put on the teachers' profession. An act prescribing a four-year teacher education was passed in the Parliament in 1988, but its execution was withdrawn three weeks before the first students were to start the new program in 1991. The stated reasons were, among other factors, a teacher shortage, and increased costs. The issue was raised again after the turn of the century, when Iceland had participated in international tests, such as PISA, and wanted to show comparable achievement in education to the other Nordic countries. Issues such as more diverse and complicated tasks for teachers and school policies emphasizing inclusive education called for more professionalism; teachers were supposed to be able to confront changes and take part in school development, for example researching their own teaching practice (Sigurðardóttir & Kjartansdóttir, 2018). This discussion was not limited to Iceland, and many countries considered moving teacher education to the master's level; accordingly, many looked to the example of the Finnish teacher educational system, which had been a five-year research-based program since 1979 (Rasmussen & Dorf, 2010; Westbury et al., 2005).

In Iceland, an integrated five-year teacher education program was organised by the universities in Reykjavík and Akureyri in accordance with the framework prescribed by the Bologna Agreement, a three-year bachelor's degree (180 ECTS credits) and a two-year master's program (120 ECTS credits) (Kristinsson, 2010). The five-year education was to be research-based professional education, characterized by three main themes: (1) research, (2) solid practice in collaboration with schools and (3) creativity and communication (Bjarnadóttir, 2012; Sigurðardóttir, 2014; Westbury et al., 2005). The emphasis on research was to be evident in all courses, and a master's thesis worth 30 credits was made an obligatory component. Furthermore, the integration of school-based practical experience and university-based theoretical underpinnings were supposed to enhance student teachers' professional competence (Sigurðardóttir, 2014). The increased focus on creativity and communication was consistent with changes in approach to teaching and learning, where the focus on knowledge was diminishing. This shift in focus was also seen in

the National Curriculum in 2011 (The Icelandic National Curriculum Guide for Compulsory Schools. General Section, 2011).

Teacher shortages were a major concern in the last decades of the twentieth century, especially in the rural areas, and the idea of adding years to teacher education was considered by some to potentially exacerbate the situation. In the 1990s, the Iceland University College of Education in Reykjavík and the University of Akureyri began offering teacher education for distance students to educate teachers for the rural areas of Iceland (Aðalsteinsdóttir, 2007; Stefánsdóttir & Mýrdal, 1993). The rate of applications to teacher education programs were quite good for a few years around the turn of the century, due to the increased and more varied range of education for teachers and the flexibility offered by distance education. Compared with the period 1995 to 2003, when 172 licensed teachers graduated annually on average in the country, they averaged 292 per year from 2003 to 2011. This increase can primarily be explained by a decision made in 2003 to open access to the distance teacher education program at the Iceland University of Education to all applicants regardless of residence or whether they worked in schools or not; this experience had previously been a condition for admission when the distance program was first launched (Jóhannsdóttir, 2010b). In the following decade, the number of students enrolled in distance education accounted for approximately half of all student teachers (Jóhannsdóttir & Björnsdóttir, 2018; Jóhannsdóttir & Jakobsdóttir, 2011; Kaaber & Kristjánsdóttir, 2008).

At the turn of the century, it was estimated that the need for compulsory-school teachers would be satisfied in 2008 (Ríkisendurskoðun, 2017). Considering that it was believed that the length of teacher education could be extended without any disturbance for staffing of the schools since the school system could cope for two years without new teachers. In 2008, when the five-year requirement came into force, the need for teachers was practically satisfied, as predicted, even in rural areas. However, the effect of the retirement of the largest cohort of full-time teachers around 2015 had been underestimated, and a research-based master's education turned out not to be as attractive for students as the three-year educational track.

Only ten years after the implementation of the five-year teacher education the school system faced an imminent and more serious teacher shortage than ever before. The interesting trends that led to the optimistic implementation of a five-year research-based teacher education in Iceland at the beginning of the twenty-first century might now be partially reversed.

8.2 External Frames for Teacher Education

In this section, we explain how teacher education in Iceland is governed by laws and regulations and how it is organized. We will look at the two recent milestones in teacher education: the introduction of the five-year education in 2008 and the changes presented in the 2019 act.

8.2.1 The Five-Year Education Introduced in 2008

In 2008, a new act on teacher education and teacher certification required a five-year educational track for preschool, compulsory-school and upper secondary school teachers (Act No. 87/2008 on the Education and Recruitment of Teachers and Administrators of Preschools, Compulsory Schools and Upper Secondary Schools). Effective from July 1, 2011, all new graduates had to have a master's degree in addition to a bachelor's degree. The first student teachers to undergo the five-year educational program began their studies in the fall of 2009 and graduated in 2014.

In 2009, a regulation on the framework of teacher education (Regulation No 872/2009 about the Content of Education for Teachers in Preschools, Compulsory and Upper Secondary Schools) specified two main subject fields in teacher education: (1) a school subject or a field of study (i.e., a collection of different subjects with a common denominator across different school grades and subjects) and (2) pedagogy and subject didactics. The regulation stipulated how many ECTS credits the student should earn within those two fields to be qualified at different school levels but did not define further the content of these credits. Thus, the teacher education institutions could organise their own content in detail, considering the national curriculum for the respective school levels. For example, internship credits were considered part of the pedagogy/didactics credits, but their number was not specified.

Teacher eligibility for the different school levels required different number of credits in the two subject fields. In pedagogy/didactics, 120 credits were required for compulsory-school teachers and 60 credits for upper secondary school teachers. In the school subjects, 90 credits were demanded for the compulsory school level and 180 for the upper secondary school level, in all 210 credits for the compulsory-school teachers.

Graduates from compulsory-school teacher education would qualify as teachers at the whole compulsory level and in all subjects, regardless of their chosen specializations, but in upper secondary schools, the license was restricted to teaching a specific subject area.

Special rules applied to the training of teachers in sports, arts and crafts. By virtue of their specialization in physical education or arts and crafts, they could become qualified as teachers in both compulsory and secondary schools. In upper secondary school, their eligibility was limited to their specific subject, but in compulsory school, they would, in principle, be eligible and qualified to teach all subjects.

8.2.2 A New Act in 2019 — One License for all School Levels

The new act on the education and the employment of teachers and principals at all school levels, adopted in June 2019, differs from the previous law in three important respects (Act No 95/2019 on the Education, Competence and Employment of Teachers and Heads of Primary, Lower Secondary and Upper Secondary Schools), as follows:

> The law defines competence frameworks – general competence, which applies to teachers at all school levels, and specific competence for the different school levels. The general competence consists of traits considered important to all teachers, such as the ability to organise schoolwork according to the curriculum, motivate children and young people, cooperate with parents and mediate knowledge. The general competence is supposed to be covered by 60 credits in pedagogy/didactics for teachers at all levels and the specific competence by 90 credits in a subject area for preschool and compulsory-school teachers, and more for upper secondary school teachers. A qualified teacher must have completed five-year program with a degree at the master's level (180+120 credits), with or without an independent thesis of 30 credits – that is, at Level 2.1 or 2.2, according to the National Qualification Framework for Higher Education in Iceland (ENIC/NARIC Iceland, n.d.). Instead of 210 predefined credits, assigned to the two main subject fields, only 150 credits are predefined in the 2019 legislation.

This means that a licensed teacher will, in principle, be qualified and have the right to employment as a teacher at all three school levels. The Act of June 2019 abolishes the special position that applied to teachers in sports, arts and crafts because all teachers are now licensed at all three school levels, and they can move more easily between school levels than before. However, in upper secondary school, at least a bachelor's degree in a subject is required to teach most subjects.

Two major changes in the act make it easier for students to finish their teacher studies than previously. Within a five-year teacher education master's program of 300 credits, only 150 credits are specified for all teachers, instead of 210 credits for compulsory-school teachers in the earlier five-year program. Lower number of minimal credits in both pedagogy and subject areas means that it is easier for students to fit different educational backgrounds to a teacher education. The research-oriented master's thesis, which was the final goal of the research-based integrated five-year teacher program in 2008, is now optional and can be replaced with courses. The master's thesis had been an obstacle to graduation, and by making it optional it was hoped that more teachers would graduate.

When this article was submitted, in 2022, two years had passed since the new act was implemented, and we could see the first effects on the attendance and graduation in the teacher education program, as will be discussed later. What impact it will have on the content and the organisation of the teacher education in the long run remains to be seen.

8.3 Iceland's Higher Educational Institutions Offering Teacher Education

Education for compulsory-school teachers is offered at three different educational institutions. The Ministry of Culture and Education monitors whether the study programs offered at the various universities meet the regulation's requirements for obtaining teacher qualifications, and the universities regularly undergo internal and external evaluations according to the Bologna process, which ensure that the defined qualification criteria are met.

8.3.1 The Three Universities

The University of Akureyri, founded in 1987, began offering teacher education in 1993, concentrating on the rural areas. Their teacher education program is organised as a unified curriculum divided into three directions or main subjects: compulsory-school teachers, physical education teachers and preschool teachers. The university is small, and opportunities for specialisation are limited; for example, almost all first-year courses are common for all student teachers (Háskólinn á Akureyri, 2020).

The Academy of Fine Arts was founded in 1998 and since 2001 has offered a teacher education program in pedagogy and subject didactics, a two-year master's degree in pedagogy, for those who already have a bachelor's degree in aesthetic subjects (visual arts, textile, drama or music). Since 2019, a teacher education program has also been organised for students with a bachelor's degree in subjects other than art, focusing on the pedagogical methods of the arts. Teacher candidates graduating from the Academy of Fine Arts are licensed to teach in compulsory and upper secondary schools.

Teacher education at the University of Iceland goes back to the first teacher's college founded in 1908, which became a university college in 1971. In 2008, it was merged with the University of Iceland and became the School of Education, one of the university's five schools. The University of Iceland educates the majority of compulsory-school teachers and offers the most opportunities for specialisation; therefore, we will devote the next sections to describing that program.

8.3.2 University of Iceland – School of Education

The School of Education at the University of Iceland includes education and research related to upbringing, education, and teaching within the whole school system. Initially, after the merge with the University of Iceland, the teacher education program was organised mainly within one faculty, the Faculty of Teacher Education, which comprised teacher education for preschool, compulsory school and upper secondary school. Teachers in physical education, health promotion and home economics were educated in the Faculty of Sport, Leisure Education and Social Pedagogy.

In 2018, the School of Education was restructured from three to four faculties: the Faculty of Education and Pedagogy, Faculty of Subject Teacher Education, Faculty of Health Promotion, Sport and Leisure Studies, and Faculty of Education and Diversity. The first two faculties took over the role of the former Faculty of Teacher Education and now manage most of the teacher education programs. The Faculty of Education and Pedagogy offers teacher education studies for grades 1 to 4 and preschool teacher education. The Faculty of Subject Teacher Education offers programs for school subject teachers in the compulsory and upper secondary

schools. The Faculty of Health Promotion, Sport and Leisure offers teacher education in physical education, health promotion and home economics.

This split of compulsory-school teacher education into more than one faculty has been perceived as a fundamental change in how teacher education and the profession are viewed (Sigurðardóttir et al., 2018). When almost all teacher education was within the same faculty, it was, in principle, implied that this structure was based on a uniform ideal of the teaching profession, going back to the idea behind the first college of teacher education in 1907. Since the split, teacher education for the first level of the compulsory school has been put together with preschool teacher education in one faculty, and subject teacher education for compulsory and upper secondary schools has been placed in another. The intention behind this arrangement was, on one hand, that the education of preschool teachers and the early years compulsory-school teachers should become more coordinated, and the understanding between the two school levels should improve. On the other hand, it was expected that the Faculty of Subject Teacher Education would consolidate the linkage between the lower secondary, which is part of the compulsory school, and the upper secondary school. The idea was also that it would be easier for a faculty with focus on teaching subjects to organize subject teacher education in cooperation with other faculties within the university that provide education in school subjects.

8.4 The Organization of Teacher Education

The five-year compulsory-school teacher education can be completed in two ways, either within a uniformly integrated five-year program at a teacher education institution or as a consecutive two-year program at a teacher education institution in pedagogy and didactics at the master's level for those who already have a bachelor's degree (BA/BS/B.Sc.) in one of the compulsory school's teaching subjects. In this chapter, we will describe these two ways of obtaining teacher qualifications in compulsory schools.

8.4.1 Integrated Five-Year Teacher Education

The teacher education program at the University of Iceland offers both courses in pedagogy and school subjects. The five-year integrated compulsory school education combines subject knowledge with didactics and practice throughout the studies (Háskóli Íslands, 2020). Students select either early years' education (grades 1 to 7) within the Faculty of Education and Pedagogy, with a mix of different subjects, or concentrate on one school subject focused on older students (grades 5 to 10) within the Faculty of Subject Teacher Education. They can choose among different

subjects, including Icelandic, foreign languages (Danish or English), mathematics, natural sciences, social sciences, information technology, design and woodwork, visual arts, drama, textile and music. The students' main subject is covered in 80 credits – 40 credits at the B.Ed. level and 40 credits at the master's level. Student teachers take 120 credits in general pedagogy and 40 credits in core subjects, such as Icelandic or mathematics.

Practice teaching is usually connected to courses in both general pedagogy and subject didactics (Sigurðardóttir et al., 2018) and ads up to 40 credits – 16 at the undergraduate level and 24 at the master's level. A contract is made between the university and compulsory schools to act as placement schools, where students do their practice teaching and observations (Bjarnadóttir, 2012). Student teachers are assigned a practice mentor, an experienced teacher working in the school who is responsible for guiding and mentoring. The aim is to provide deeper and more focused training for student teachers in the workplace and to strengthen the ties between academic study and practical work (Sigurðardóttir et al., 2018, p. 148). The university teachers in the respective courses are in contact with the trainee schools and visit the students during the internship periods (those located within a moderate distance from the University of Iceland in Reykjavik), where they attend lessons and provide feedback and advice for furthering their competence as professional teachers. Teacher educators at university and practice mentors in the compulsory schools share responsibility for the students' academic preparation and execution of the practice.

Every year during their undergraduate studies, student teachers engage in practice teaching periods for two or three weeks in compulsory schools, usually in the spring term. At the start of practice teaching, the student teacher observes the professional teacher's teaching and follows his work and eventually assumes the responsibility to teach under the supervision of the practice mentor or another professional teacher.

At the master's level, the internship period (24 credits) is spread over the whole second year. The student teacher is supposed to take part in the schoolwork from its start in August to the end of June as a half-time service. Since autumn 2019, student teachers at the master's level have had the opportunity to take their last internship period as paid service. Schools that hire fifth-year student teachers are required to support them and consider that they need time for their studies. The students are supposed to work in the school three or four days a week but devote themselves to their studies two days a week, where one day is reserved for lessons, workshops, or meetings with their thesis supervisor, for those that have chosen to graduate with a M.Ed.-degree.

At the end of each practice period, the school mentors assess student teachers' practical competence. The teacher educators at the university provide guidelines and criteria for mentors' assessment and review the assessment report from the school mentors. If there is any doubt about the student teacher's competence, the teacher educator consults the school mentor.

8.4.2 Consecutive Teacher Education Program

In Iceland, the education of secondary school teachers has traditionally been organized along the consecutive model: one or two years in pedagogy and didactics after a university degree in the teaching subject. With the five-year teacher education of 2008, this model also became an option for compulsory-school teachers and preschool teachers. At the Faculty of Subject Teacher Education, the two-year master's program (120 credits) can be related to any of the compulsory school's teaching subjects. In the Faculty of Education and Pedagogy, which educates teachers for grades 1 to 4, the requirements are a bachelor's degree in a subject or subject field related to early education. Students at both faculties complete 60 credits in courses with an emphasis on general pedagogy and subject didactics in the first year. The second year is devoted to school practice (24 credits) in a compulsory school, with supportive university courses (6 credits), writing a master's thesis (30 credits) or taking 30 credits in courses. Recently it has been an option to get teachers' licence by adding one-year diploma to a masters' degree in a teaching subject or subject field.

In the consecutive program, the student teachers have no experience of teaching from their undergraduate studies, so the organization of practice teaching in the master's program is different from the five-year integrated program. Practice teaching in the first year is planned for about three weeks, corresponding to seven credits. During their second and final year, they have, like the student teachers in the integrated five-year program, an opportunity to take their practice teaching as paid internship, and the structure is the same for both groups.

8.4.3 Study Format – On-Campus or Distance Education

Since 1993, it has been possible to complete teacher education at the University of Iceland (Iceland University of Education before 2008) through distance education (Stefánsdóttir & Mýrdal, 1993) – and at the University of Akureyri since 2000. In the beginning, the three-year education was organized as a four-year part-time education for distance students, intended to enable students to study at the same time they were working as unlicensed teachers (Jóhannsdóttir, 2010b; Jóhannsdóttir, 2013), but since the school year 2010–2011, the distance education and on-campus programs were synchronized in a co-teaching model (Jóhannsdóttir & Jakobsdóttir, 2011).

Most distance students lived in rural areas and completed their internship in the district where they lived. Eventually, as the teacher shortage in rural areas was amended, the distance program became open even to those living in the urban areas near the university in Reykjavik (Jóhannsdóttir, 2010a). The number of applicants increased, and for several years not all could be accepted. In recent years, most of the distance student teachers live in the capital area but choose the distance learning

format because it gives them the opportunity to work while pursuing their education (Jóhannsdóttir & Björnsdóttir, 2018).

In the so-called co-teaching model, each course has a common website for all students, where the teachers post all information about the course, the reading material, and the syllabus, and where communication about the course takes place. Many teachers record their lectures, either during the lesson itself or separately, or make the subject otherwise available on the website. As a rule, all distance student teachers were required to attend lessons at the campus for two weeks each semester, one week at the start of the semester and again around the middle of the semester (Jóhannsdóttir & Björnsdóttir, 2018). With the development of technology for net meetings students have been able to participate in lessons and workshops online and after the Covid epidemic this seems to be the common practice.

8.5 Challenges for Teacher Education in Iceland

When teacher education was extended to five years in 2008, the number of applicants dropped significantly. Data showed that student progress was slow, the drop-out rate was high, and a low number of graduates was a serious matter of concern. At the same time, large cohorts of compulsory-school teachers were retiring, and the schools had lost younger teachers to other jobs where the conditions were better or they received better salaries (Eyjólfsson & Jónsson, 2017; Jóhannsdóttir & Björnsdóttir, 2018). Already in 2016, the alarm bells started ringing. Studies of teacher shortages in Iceland had shown that over the next 15–20 years, the number of compulsory-school teachers would decrease while the number of children of school age would increase. This development had already started, resulting in a rapidly increasing demand of student teachers to work in the schools, which in turn lead to that their proceeding in their studies halted (Björnsdóttir & Jóhannsdóttir, 2020). If this development continued, half of the teacher positions in compulsory schools would be occupied by unlicensed teachers within less than 20 years (Eyjólfsson & Jónsson, 2017). A serious teacher shortage was imminent, and the compulsory school would be more less inoperative in 20 years.

In 2017 a working group on the recruitment problem in the teacher profession submitted proposals in eight points, which included actions from all stakeholders, the teacher education institutions, the municipalities, the teachers' union, — and the ministry, which is under discussion here.

In 2018 the Ministry of Education Science and Culture launched an action plan to respond to the imminent teacher shortage (Mennta- og menningarmálaráðuneytið, 2019). The plan consisted of proposals that concerned the three major fields involved, firstly the legal framework on teacher education and license to teach, secondly the professional status and working conditions of teachers in the schools and thirdly the teacher education itself and the students' finances. Here we will discuss only the proposals that affected the teacher education.

8.5.1 Dropouts and Slow Educational Progress

University education in Iceland is tuition free, and there has been little pressure from the University for the students to finish their studies within a certain time limit. In Iceland, unemployment has been low, and it has been easy to get a job. Icelandic students graduate from upper secondary school at the age of nineteen or twenty, and many are already at that time active in the labour market.

The proportion of students who are either delayed in their studies or who simply quit is generally quite high in Iceland. Icelandic students are among the oldest, compared to other European countries. Older students have more family obligations that come with age; the cost of housing is high, and student loans are perceived as an additional financial burden for a low-income group. During their years at university, students have more concerns about their finances than students in other European countries and are more likely to have paid jobs along with their university studies (Hauschildt et al., 2021). This, of course, affects their progression. Student teachers are, on average, older than students in other fields of study in Iceland, work longer hours and avoid taking student loans. This is especially true for distance students (Jóhannsdóttir & Björnsdóttir, 2018).

The autumn of 2008 was the last semester for enrolment of students in the three-year teacher education program. At that time, 278 new students were enrolled in compulsory teacher education at the University of Iceland. Three years later, in 2011, 213 students graduated as teachers, the last teacher cohort that graduated with a bachelor's degree (Háskóli Íslands, n.d.). Since then, the number of newly registered students decreased gradually while the number of graduated teachers decreased dramatically. In the fall of 2010, newly enrolled students were 189; the numbers dropped to 114 in 2012 and 79 in 2016 (Háskóli Íslands, n.d.). In the spring of 2012, a modest number of 111 students reached their B.Ed.-degree but only 51 students embarked upon the master's degree program (Jóhannsdóttir & Björnsdóttir, 2018). Two years later, in 2014, 27 students graduated as teachers, the first new licensed teacher cohort from the master's program. Since 2014 the number of graduated teachers has risen very slowly. Five years later, in 2019, only 45 students graduated as teachers at the School of Education.

During the period 2013–2018, 570 students in total completed their B.Ed. degree from both University of Iceland and University of Akureyri, but only 294 graduated with a M.Ed. degree (Sigurðsson et al., 2020). Slow progression through the studies and student dropout was a serious problem throughout the teacher education. In the three-year bachelor program less than one fourth of registered students finished their degree each year, and in the two-year master's program about one fifth of registered students graduated each year (Björnsdóttir & Jóhannsdóttir, 2020). According to an informal survey of student dropouts at the University of Iceland, there were four high dropout time points, at the beginning of the studies, both at the bachelor and master's level, and at the end of each level, when only the thesis remained, 10 and 30 credits, respectively.

The fact that too few student teachers proceeded to the M.Ed. program after finishing the B.Ed. degree caused great concern for educational authorities and teacher education programs. However, it may partly be natural for students to change their field of study at this time or take a break (Hauschildt et al., 2018). Some students who quit teacher education at this point may continue their studies at another faculty, while students who complete other undergraduate degrees may decide to start teacher education in the two-year master's program. The latter group of students has become more numerous in the last few years so it seems that this point of change in the students' career may favour the teacher education. The challenge for teacher education programs remains, to retain students and have them continue their studies.

The challenge is not only to graduate more new teachers but also to ensure that they stay in the profession after graduation. A survey conducted among the 2014 to 2016 graduates from the five-year teacher education program at the University of Iceland showed that they were immediately employed. Almost everyone was still teaching three and four years after graduation, which was a considerably higher proportion than that of previously graduated teachers after three-year teacher education (Sigurðardóttir & Kjartansdóttir, 2018). It turned out that the new teachers were generally very satisfied with their five-year education; however, they felt that there was too much emphasis on theory, while practical knowledge and training needed improvement (Sigurðardóttir et al., 2018; Sigurðardóttir & Kjartansdóttir, 2018). By reorganizing the internship in the master's program as a half-time service for a full year, it was hoped that the students would receive solid training and a more comprehensive support from both the student educators at the university and the school mentors.

8.5.2 Measures to Graduate More Student Teachers

It is too early to assess whether the measures, proposed in the action plan of 2018, will have a long-time effect, but we can already see some short-term effects. The number of freshmen in the five-year integrated teacher education programs at the University of Iceland has already doubled, going from 109 in 2017 and 2018, to circulating around 200 in 2019 to 2021. The number of registered students in the two years master's programs has gone from 228 in 2017, slowly rising to 274 in 2018, leaping to 363 in 2019 and to 609 and 591 in 2020 and 2021, respectively (HÍ í tölum, n.d.). The number of registered students in the master's program has almost tripled in three years.

The 2019 Act on Teacher Education included two measures that are likely to reduce dropout: The last year of the studies the practice teaching is a paid internship, and the thesis is now optional.

At the University of Iceland, the graduation rate seems to be on the rise. In the year 2019 50 students graduated at the University of Iceland as licenced teachers in the compulsory school. Already in 2020 79 teacher students graduated, about half of them were completing the integrated five-year program, while the other half were

enrolled in the two-year consecutive program. In 2021 the number of graduated teachers from the compulsory-school programs rose to 164 (Háskóli Íslands, n.d.). The impact of making the master's thesis optional, first applied in 2020, seems to be crucial in this increase, since 129 students, or 79% had chosen the MT-degree, without a final thesis. To put that in context 164 graduates are comparable to the number in the last cohort that graduated as licensed teachers with a bachelor's degree in 2011 (213), and almost three times as many as the mean number of graduates in 2014–2019. This development seems to continue in 2022: According to information from the student registry 135 teachers graduated from the compulsory-school teachers' program in June, of which 124 choose the MT-degree, without the masters' thesis, or 96%.

8.6 Conclusion

Iceland still faces a serious shortage of teachers. The action plan put forward by the ministry of culture and education in 2018 drew attention to the importance of teachers as professionals and their education. The positive aspects of the teacher profession were elevated in media and the importance of a "good teacher" for our children was emphasized. The student teachers' union launched a campaign for attracting young people to teacher education, supported by promises from the minister of education, science, and culture that parts of the study loans might be converted to scholarships. Finally, the new Act of 2019 has led to radical changes in teacher education and the conditions for teacher certification at the different school levels. The new laws make it easier to become a teacher and easier for teachers to move from one school level to another.

The results of those measures are starting to appear. The number of applicants for the five-year integrated compulsory-school teacher education and two-year consecutive teacher education programs have been increasing since 2018. It will take a couple of years more for these measures to take full effect in the number of graduated new teachers, but we can already observe a considerable increase, from 45 in 2019 to 164 in 2021

The quality of the two-year consecutive program compared to the integrated five-year program is unknown. Students entering the early childhood education program can have a quite diverse educational background; some are educated in related fields such as pedagogy or psychology, while others may have unrelated educations, such as archaeology or economics (Björnsdóttir & Jóhannsdóttir, 2020). What consequences the teacher's licence, which is supposed to be valid for all school levels, will have on professionalism of teachers at different school levels remains to be seen. Having enough licensed teachers with diverse educational backgrounds at all school levels is, of course, desirable, but it seem as though we are losing control over what a five-year professional teacher education stands for, and we have few measures to assess its quality. Yet we have a reason to hope that teachers with five years of pre-service education will endure better in their jobs as teachers than those with only three years of preparation.

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Chapter 9
Teacher Education in the Faroe Islands

Hans Harryson

Abstract This chapter begins with an overview of the 150-year history of teacher education in the Faroe Islands. The quality of the current teacher education programme is assessed on the basis of five distinct indicators: (1) recruitment, (2) academicization, (3) pitfalls, (4) resilience and (5) competence. These five gauges are often assessed separately in teacher education research; however, to gain an adequate understanding of the quality and relevance of teacher education in the twenty-first century, they must be examined together. Finally, the article reflects on the future of teacher education in the Faroe Islands.

9.1 Introduction

The Faroes Islands are an archipelago in the North Atlantic Ocean, consisting of 18 larger and smaller islands, 17 of which are inhabited. The total land mass is only 1400 km^2, the territorial waters cover 247,000 km^2 (Hagstova Føroya, 2021).

Geographically, the Faroes are an isolated micro society with its own language, history and traditions. The islands were first settled around 650 AD. Fisheries and Salmon farming are the main industries. While geographically remote, the Faroes are still a modern society, offering its inhabitants a living standard and educational and vocational opportunities comparable to other Nordic countries.

Many find it puzzling that a microsociety like the Faroes has been able to develop at the same rate as its neighbours. One reason is that within the framework of the Danish commonwealth, a good and solid educational system has been established.

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Faroese teachers are often known as the nation's most important culture bearers. They have not only fulfilled their role as educators but have also set an indelible mark on Faroese culture as authors, musicians, painters, journalists and church deacons. Furthermore, they have been well represented in the political system as parliamentarians and government ministers. Faroese teachers were among the first to see the need for Faroese both as the language of instruction in schools and as the liturgical language in the church. They also saw the importance of schooling in Faroese history and cultural heritage (Nielsen, 1998a, 1998b). However, despite the task of nation building, constructing both national identity and pride, the Faroese school has never attempted to isolate itself from the rest of the world. This was evident in a major early twenty-first century Nordic study, which showed that Faroese youth were more proficient in Nordic languages than their peers in neighbouring countries – and they showed high proficiency in English as well (Delsing & Lundin, 2005; Higgens, 2009). The high priority placed on language proficiency in the Faroese public school system has proven to be a condition for the local educational system's ability to follow trends in neighbouring countries and further afield.

Early in 2021, the population was about 52,000, of which 22,000 live in the Torshavn municipality. As for education, the numbers are as follows:

- 250 pupils in the 9 pre-schools in the Faroes
- 7000 pupils in the 41 primary/lower secondary schools,[1] 3 private schools and 1 special school
- 2000 pupils in the 5 upper secondary schools
- 200 students in the 2 schools that offer maritime education
- 1000 students at the only university in the Faroes, Fróðskaparsetur Føroya

In addition, about 1000 Faroese youth were taking higher degrees abroad, with more than 80% of them studying in Denmark (Hagstova Føroya, 2021a).

This chapter commences with a broad overview of the history of teacher education in the Faroe Islands followed by the evaluation of the current teacher education programme on the basis of five distinct barometers:

- The recruitment barometer
- The academicization barometer
- The pitfalls barometer
- The resilience barometer
- The competency barometer

The chapter concludes with a reflection on the direction the Faroese Teacher Education programme will take in the coming decade.

[1] 740 students attended the largest school in 2020/21 and only one in the smallest (Búskaparráðið, 2021). The annual budget for the primary/early secondary school in 2021 was DKK 403 million (Fíggjarmálaráðið, 2021b).

9.2 Overview: The Origins and Development of Teacher Education in the Faroe Islands, 1870–2008

Teacher Education was the first higher education degree offered in the Faroes. It was established over 150 years ago, when the political authorities decided that all Faroese children should learn basic skills, and that this should take place in a state school (Petersen, 1994).

Between 1870 and 2008 it is evident that Faroese teacher education looked to Denmark for inspiration. Whenever Danish teacher education was modified or revised, the same would happen in the Faroes within a few years (Nielsen, 1998b). Faroese teacher education has historically been quite stable, only being changed six times, in 1878, 1907, 1938, 1962, 1980 and 1991 (Holm, 1970; Nielsen, 1998b). This is quite surprising considering the major societal changes during this period.

Faroese teacher education has been characterised from the outset as (1) an integrated teacher education programme, in which the students study school subjects, pedagogy and field placement (practicum) concurrently, and (2) a generalist degree, which has qualified the students to teach in all subjects and every class level upon graduation. The structural changes in the programme during this period have not touched these two pillars. Rather the changes have concerned the following:

The length of the programme.
1870 – a two-year programme.
1878 – a three-year programme.
1938 – a four-year programme.

Course Content

- 1870 – Christian religious education, Danish, history, geography, arithmetic, writing and singing.

1878 – English, mathematics and natural sciences are added.
1907 – Faroese, physics, woodwork, zoology, botany, playing the organ are added.
1968 – In addition to a string of obligatory subjects, students specialise in either mathematics/natural sciences or languages.
1980 – A distinction is made between basic courses and specialisations: The basic courses are Faroese, arithmetic, Christian religious education, Danish, writing, sports, arts, woodwork, handwork, music, and home economics. Students then specialised in three school subjects.

Pedagogical Content

- 1870 – Teaching and upbringing.

1962 – Pedagogy and psychology replace the indefinable subject ´teaching and upbringing` and are singled out in the legal framework as the primary subject in teacher education.
1980 – Pedagogy and psychology included in all the 4 years of the programme.

Practicum

- 1870 – Practicum was an integral part of the programme.

1938 – Students were to teach both younger pupils who had not yet taken any major exams, and older pupils who were preparing to take the entrance exams for secondary education.

1968 – The teacher education programme gets its own practice school.

1991 – Practicums are quantified, the executive order stating that students are to have 470 h of school placement during their 4 years of study.

It is difficult to identify educational approaches in the teacher education programme. Martin Holm, the rector of the School of Teacher Education between 1965 and 1970 writes that in a remote community like the Faroes, where you only have one teacher education programme and only a few instructors, it can be difficult to follow developments, debates and recommendations found in education elsewhere. Nevertheless, he says, that in the 1960s attempts were made to introduce activities that allowed the student teachers to be more active and independent than had been the case in teacher centred education (Holm, 1970). Pauli Nielsen, who was the rector between 1989 and 2006, points out that teachers in a small country like the Faroes will always end up teaching several subjects that lie outside the specialisations they focused on in their degree. Therefore, teacher education in the Faroes must focus first and foremost on the pre-service teachers' personal development — they need to learn to be teachers, receive insight into the profession's many aspects and tasks, and they need understand the function of schooling in society. This, in one way or another, is anchored in the degree's pedagogical and psychological subjects (Nielsen, 1998b).

Researchers in education often note that changes in the legal framework and new executive orders do not always result in major changes in pedagogical practice. Such reforms are often hampered by the fact that those whose task it is to execute these reforms are not given sufficient time, education and opportunities to discuss the changes in the implementation period. Therefore, the reform has only a limited impact (Haug, 2013).

9.3 2008: A New Bachelor of Education Degree

In 2006, the Faroese Ministry of Culture published a report on the teacher education and social education programmes in the Faroe Islands. The members of the working committee behind the report had examined the trends in the Nordic countries and unanimously recommended that the Faroese degree in teacher education should become a research-based bachelor's degree (Zachariasen, 2006). The report was supported by the political system, and on 1 August 2008, the Faroese School of Teacher Education (which offered degrees in teacher education and social education) and the University of the Faroe Islands were merged

(Uttanríkis- og mentamálaráðið, 2008). And in the summer of 2008 a new B.Ed. degree was launched.[2]

Neither the report nor the legal framework for the university set out how the two institutions were to be merged. Furthermore, there were no discussions on how the mergers should shape the future of teacher education (Joensen, 2020). This proved not only to be a major challenge for the rector of the Faculty of Education and his colleagues, but also gave them certain opportunities, since an explicit requirement for the new degree in teacher education was that it should be:

- oriented toward both a primary/lower secondary school discourse and a university discourse
- research-based and oriented to the profession
- retain the successful parts of the old degree and discard what proved to be lacking

To find the balance between these poles was no easy task, since the various stakeholders disagreed, and still disagree, as to what is to be prioritised in teacher education. The rector responsible for teacher education and specialists from the Ministry worked closely together over a long period of time (Joensen, 2020). The result was a quite unique 4-year research-based degree. After the first 3 years of study, students received a bachelor's degree that gave them entrance to master's programmes in education and related fields at certain universities abroad (Pedersen, 2009). However, in order to receive their teaching certificate, giving them the right to teach at the primary and early secondary level, they had to complete another diploma year (Uttanríkis- og mentamálaráðið, 2009).

The executive order for the new degree in teacher education was quite detailed, laying out precisely what subject areas the students were to work with each semester. During their first year of study, the students were to take a string of introductory courses: Theory of Science, Children and Youth Culture, Worldview and Ethics, Faroese, Psychology, General Pedagogy/Didactics. In the second year, students chose one of three tracks: Humanities, natural sciences or a creativity track. During their third year, student took their first specialisation[3] and wrote a bachelor thesis. Having completed their second specialisation, the fourth year finished with a diploma project.

[2] The University of the Faroe Islands was founded in 1965 and received university status in 1987. The university consists of five faculties, the Faculty of Faroese Language and Literature, the Faculty of Education, the Faculty of History and Social Sciences, the Faculty of Science and Technology and the Faculty of Health Science. The faculties offer 22 different bachelor's and master's degrees in total. The university employs about 150 people and has an enrolment of about 1.000 students. The annual budget in 2021 was DKK 121 million (Collins, 2021). The two main programmes of the Faculty of Education are in teacher education and social education. In addition, it also offers courses in pedagogy and teaching methods for upper secondary teacher and university instructors and researchers.

[3] The students could specialize in one of the primary and upper secondary school subjects or in (1) special education, (2) educational management, (3) teaching ind the first 3 school years.

The executive order set out the subjects that should comprise the degree but said nothing about their content (Joensen, 2020). At the department, faculty members were tasked with defining the learning outcomes, teaching methods, evaluation methods and literature of the courses in their fields of study.[4] Those who received this responsibility were usually instructors who had taught in the teaching education programme for years and were rooted in a traditional teacher education college tradition. But now, suddenly, they had to think and act as university faculty. This could not have been an easy or simple task.

9.4 The Latest Iteration: The Structure of the Degree in Teacher Education, 2016-Present

In 2016 significant changes were made to the degree in teacher education, partly due to the wishes of policy makers, the teachers' union, and the association of school principals. Also internally at the faculty, there was broad agreement that the degree, which commenced in 2008, had certain weaknesses. The main critiques were:

- the degree's disciplinary profile was too narrow.
- the three tracks in the second year – the humanities, social sciences and creativity tracks – were too broad and not anchored sufficiently in school subjects.
- students could receive a degree in teacher education without having had Faroese and mathematics, which are the two largest school subjects.
- the first-year modules were too short. This influenced learning outcomes and heightened examination pressure.
- the practicum periods were too short.
- the degree lacked adequate progression.

The teacher education degree launched on 1 August 2016 is based on a degree profile that defines the competencies a teacher is to develop in their study. A distinction is made between general competences and pedagogical competences:

The general competences include:

- academic competences
- collaboration and communication competences

The pedagogical competences include pedagogical as well as general and subject specific competences including:

- competency in interpreting laws and regulations in education.
- competency in nurturing well-being and creating good relationships.
- competency in carrying out basic development and research projects.
- competency in evaluating one's own work and life-long learning.

[4] The efforts to organize all programs at the The University of the Faroe Islands according to the Bologna declaration started in 2003 (Mentamálaráðið, 2003) and has received increasing political attention over the last decade (Løgmansskrivstovan, 2011, 2019).

Each of the overall competences have their own competence goals, which those responsible for the various courses need to take as their point of departure – or orient toward – when they define the learning outcome, content and teaching methods in their courses (Námsskipan, 2016).

The degree is structured thus (Table 9.1).

A unique characteristic of the Faroese teacher education programme is that students only take one course at a time, i.e., it uses a radical modular system, where one teacher educator oversees 100 percentage of the students' study time for the duration of the course. The specialisation consists of three modules, two 15 and one 10 ECTS modules, while the general education courses are usually divided into two courses of 10 ECTS each.[5]

The students have a practicum period every year—18 weeks in total [3 + 5 + 5 + 5]. During the 18 weeks, students are to teach 10 h a week, for a total of 180 hours. In addition to this, the students have the right to two conference hour a week with their practice teacher, for a total of 36 h (Starvslæruhondbókin, 2020).[6] The four practicum periods are not organised into individual modules but are an integrated part of the courses in Faroese and mathematics in the first year, and partly in the specialisation in the 2., 3. and 4. year practicum period.

The progression in the teacher education programme is primarily linked to the courses in pedagogy and related fields, known as "Teaching and Learning," which is common to all students of a particular year comprising 12–13 weeks per academic year. The subjects covered in "Teaching and Learning" are a combination of educational psychology, pedagogy, general teaching methods, ethics, special

Table 9.1 The structure of the Faroese teacher education programme

1. year	2. year	3. year	4. year
Teaching and learning I – *Educational psychology, language acquisition and beginner reading* (20 ECTS) Teaching Faroese 1. – 6. Grade (20 ECTS) Teaching mathematics 1. – 6. Grade (20 ECTS)	Subject specialisation I (40 ECTS) Teaching and learning II – *General pedagogy and ethics* (20 ECTS)	Subject specialisation II (40 ECTS) Teaching and learning III – *General didactics and special education* (20 ECTS)	Subject specialisation III (40 ECTS) Teaching and learning IV – *Theory of science and methods, and B. Ed.- project* (5 + 15 ECTS)

[5] A working group at the Faculty of Education has recommended that the modular system be replaced by a more traditional semester system, beginning in the calendar year 2022–23. The advantage of the current modular system is that students can study one topic in depth at a time. The disadvantage is that it hinders cooperation between general education courses and subject specific courses (Antoniussen et al., 2021).

[6] The practice teacher receives the following per student: DKK 113.09 per teaching hour, and DKK 205.61 per conference hour. The total cost for the four practicum periods is therefore DKK 28,000 per student. This hourly rate is significantly higher than in Danish teacher education programs (UCL, 2021).

education, beginning reading, and theory of science and methods. These are all interdisciplinary areas, which any teacher must be acquainted with. The academic year at the department is 40 weeks, each study week counting for 1½ ECTS points. Class attendance is compulsory.

9.5 Recruitment Barometer

The recruitment barometer indicates the popularity of teacher education in a particular country or city, and how many qualified applications a programme gets a year for the same reason. Researchers in teacher education consider the number of qualified applicants as a significant factor in a good teacher education programme (Darling-Hammond & Liebermann, 2012).

The Faroese teacher education programme has always received many applicants (Nielsen, 1998b), and continues to attract interest even as a university degree. The table below shows the relationship between (1) number of applications and (2) how many are accepted in two 4-year intervals.

Figure 9.1 shows that from 2008 to 2011, 52.1% of applicants were offered a place in the programme (Hansen, 2011), and from 2017 to 2020, 52.4% were offered a place (Setursskrivstovan). If these rather stable percentages are compared to other countries, the interest in becoming a teacher in the Faroes school system can be said to be high (Skagen & Elstad, 2020; Madsen & Jensen, 2020).

If the recruitment factor is related to the academic standard of the applicants, the Faroese teacher education programme is quite privileged. Figure 9.2 shows the grade point average of those enrolled in the programme in the same two intervals.

As the Fig. 9.2 shows, the grades are markedly higher between 2017 and 2020 (Setursskrivstovan, 2020b) than between 2008 and 2011[7] (Hansen, 2011). For the academic year 2020–21, 262 students were offered places in the eleven bachelor programmes offered at the University of the Faroe Islands' five faculties. Those offered a place in the teacher education programme had the highest average grades of all (Thomsen, 2020).

When comparing Figs. 9.1 and 9.2, it is evident that there is a close correlation between the number of applicants and grade point average in the Faroes, i.e., the more applicants, the higher the grade point average of those who have been offered a place in the programme. If the grades of those offered a place in 2019 and 2020, when the difference in grades was significant, are compared, this correlation becomes evident.

[7] The Faroese school system has since 2011–12 used the 7-point grading scale [−3, 00, 02, 4, 7, 10 & 12] instead of the older 13-point scale [00, 03, 5, 6, 7, 8, 9, 10, 11 & 13]. The 7-point grading scale was introduced in Denmark in 2006/2007. In figure 2, the grades of those who were enrolled in the teacher training programme before 2012 have been converted from the old grading scale to the new one.

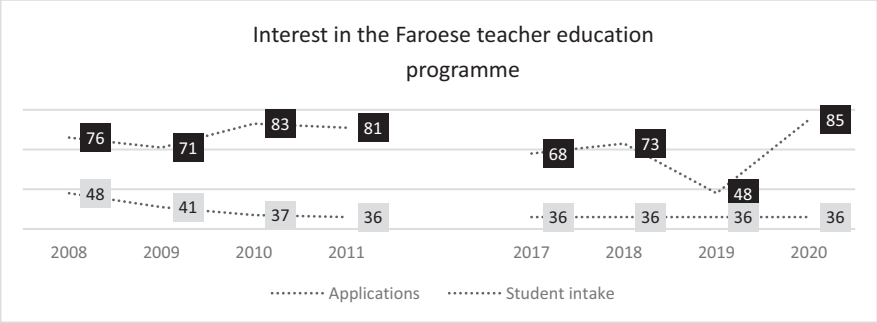

Fig. 9.1 Interest in the Faroese teacher education programme

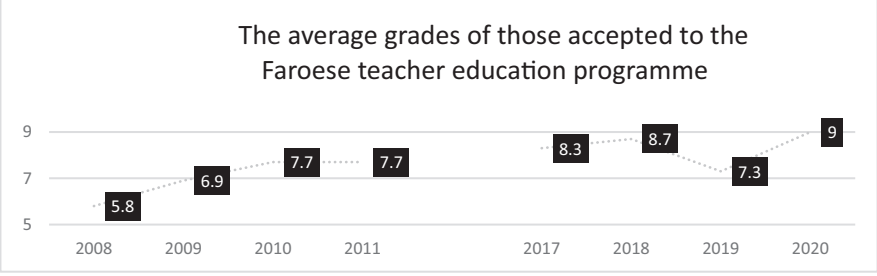

Fig. 9.2 The average grades of those accepted to the Faroese teacher education programme

Figure 9.2 showed that the average grades have varied little from year to year, and Fig. 9.3 shows that 57% of those who were offered a place in 2019, would not have done so if they applied a year later (Setursskrivstovan, 2020b). The figure also shows that the academic qualifications are fairly homogenous some years while heterogenous for others. Therefore, the average grade can never be the single parameter when considering what characterises a particular year or group of students studying for a profession.

If we compare the average grades for those who were offered a place at the Faroese teacher education programme with those who were offered a place in Danish programmes, the Faroese students have markedly higher average grades (Madsen & Jensen, 2020).

If we look at the gender distribution in the recruitment barometer, the Faroes faces the same challenges as many other countries.

Figure 9.4 shows that in the period between 2009 and 2011, 73.6% of those offered a place were female (Hansen, 2011), and that between 2018 and 2020 this number fell slightly to 65%. The reason why more women are offered a place than men is that more women apply, not that the men who apply are deemed unqualified (Setursskrivstovan, 2020a).

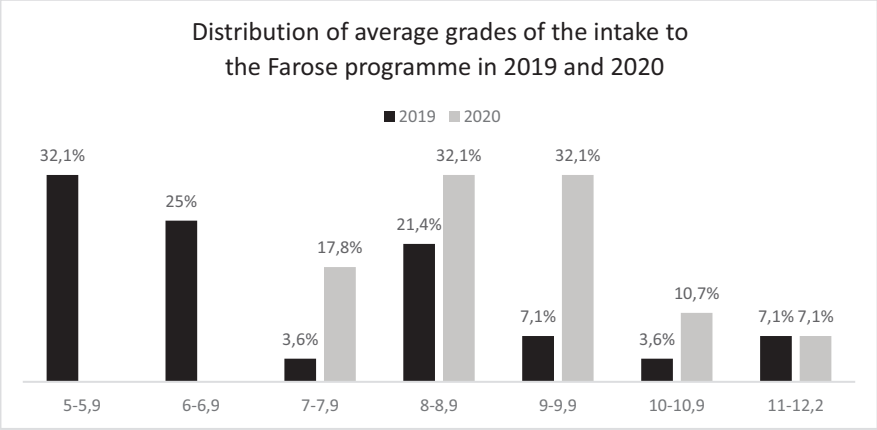

Fig. 9.3 Distribution of average grades of the intake to the Farose programme in 2019 and 2020

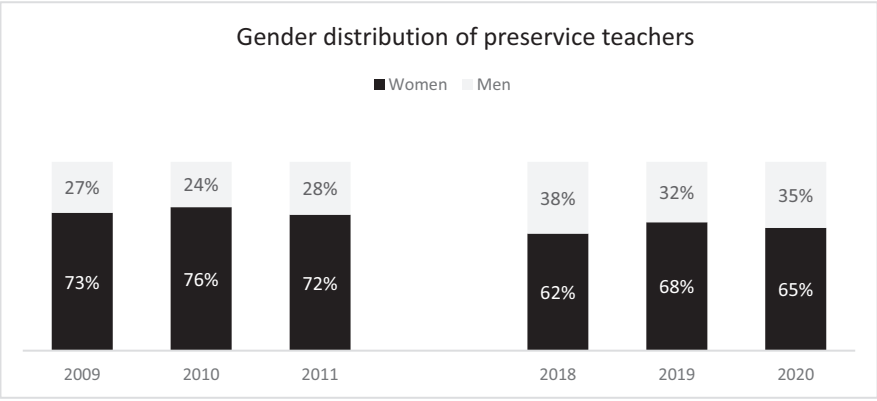

Fig. 9.4 Gender distribution of preservice teachers

The gender distribution evident in the teacher education programme is reflected in the Faroese school system. In the academic year 2019–20, 70% of all the employed teachers in the Faroese school system were women (Tausen, 2020).

The below Fig. 9.5 shows the age distribution of those who are offered a place in the programme.

Figure 9.5 shows that the age range of those who graduate in the programme is quite wide, and it is the norm rather than the exception that the youngest student is between 20 and 30 years younger than the oldest one in the same year. Some students come directly from upper secondary school, while a survey of those who started their studies in 2019 or 2020 showed that 31% had already completed one or two degrees (Harryson, 2021a). This includes professional training in a craft, degrees oriented toward a profession as well as bachelor's and master's degrees.

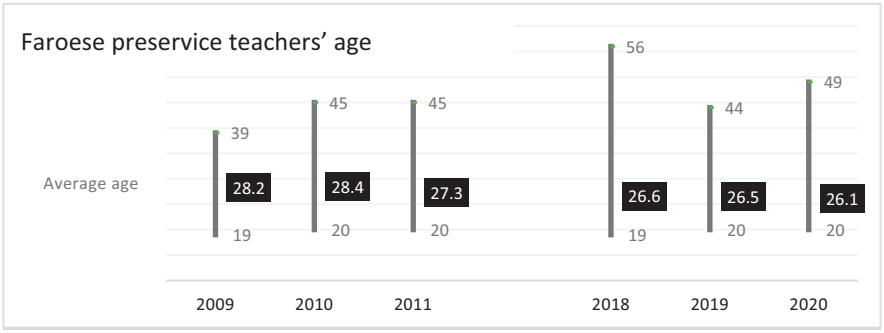

Fig. 9.5 Faroese preservice teachers' age distribution

Furthermore, Fig. 9.5 shows that the average age has fallen by two years over the last decade. Even that being the case, the average age at the teacher education programme is among the highest at the University of the Faroe Islands (Setursskrivstovan, 2020b).

When we look at the family and work background of those who are admitted to the programme, a survey of those that began their studies in 2019 and 2020 highlight the following:

29% are closely related to people who were teachers (parents, grandparents or siblings).

74% had worked in pedagogical settings (i.e., youth leaders, sports coaches or have worked in kindergartens and similar institutions) before commencing their teacher education.

17% had worked as substitute teachers in a state school, an independent school or pre-school (Harryson, 2021a).

If we correlate motivation with the recruitment barometer, it is worth noting the answers the students gave in the same survey to what the main reason was that they had applied for the programme in teacher education rather than another programme.

Figure 9.6 shows that interest in the teaching profession is the primary reason that 80% of those who began their studies in 2019 and 2020 had applied to be accepted to the programme. This is a good foundation to start from. The figure also shows that the working hours of a teacher was another significant factor. The majority of those in the teacher education programme are women of child-bearing age. A profession with a relatively short workday and long vacations may be seen to fit well with family life. Thirdly, it can be pointed out that the wages are not flagged as a main reason for choosing a career in teaching.[8]

[8] The starting wage for a Faroese teacher is DKK 28.051 a month per 1 January 2021, increasing to DKK 36.369 after 12 years. This wage is comparable to what others who hold a bachelor's degree receive a month (Fíggjarmálaráðið, 2021a).

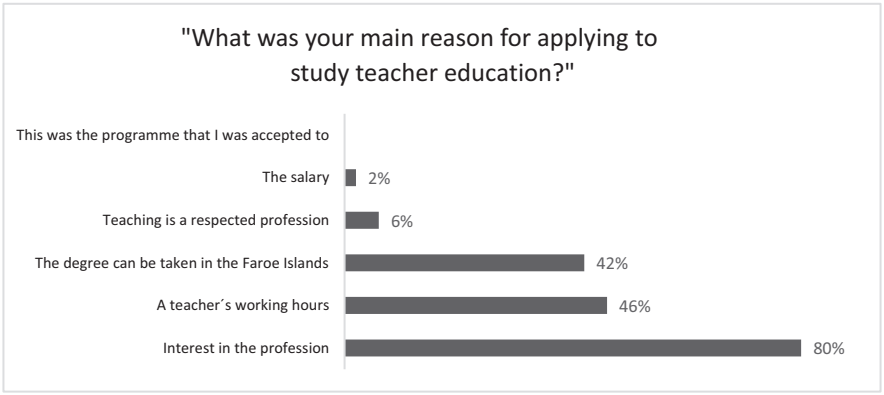

Fig. 9.6 "What was your main reason for applying to study teacher education?"

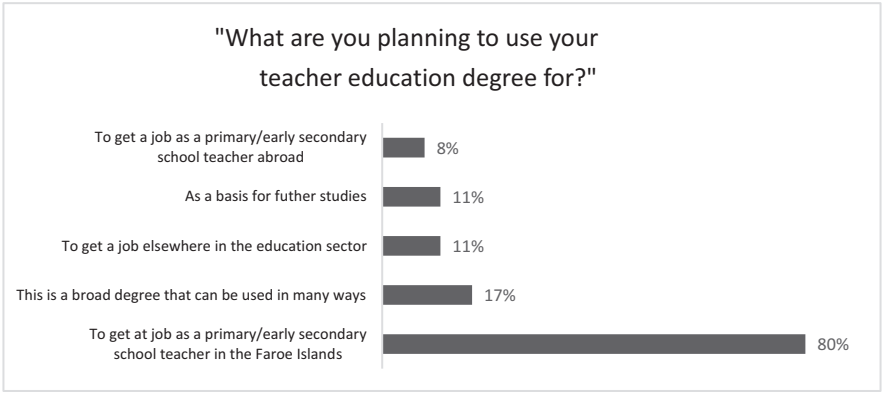

Fig. 9.7 "What are you planning to use your teacher education degree for?"

If we consider what those who commenced their teacher education in 2019 and 2020 wanted to use their degree for, the following factors come to light:

Figure 9.7 shows that the majority of those who are accepted to the teacher education programme want to work in the Faroese school system on completing their studies, or to use their studies to work within the field of education—i.e., it is the education as a discipline which is the main motivating factor.

Figure 9.7 also shows that 17% of the respondents characterise teacher education as a broad degree that can be used in many different ways. This viewpoint undoubtedly is based in the fact that many Faroese teachers have been well represented in the cultural life of the Faroes as well as in arts, media and politics. From an academic viewpoint, it is worth noting that only 11% of the applicants plan to go for further studies. This is markedly lower among pre-service teachers in the Faroes

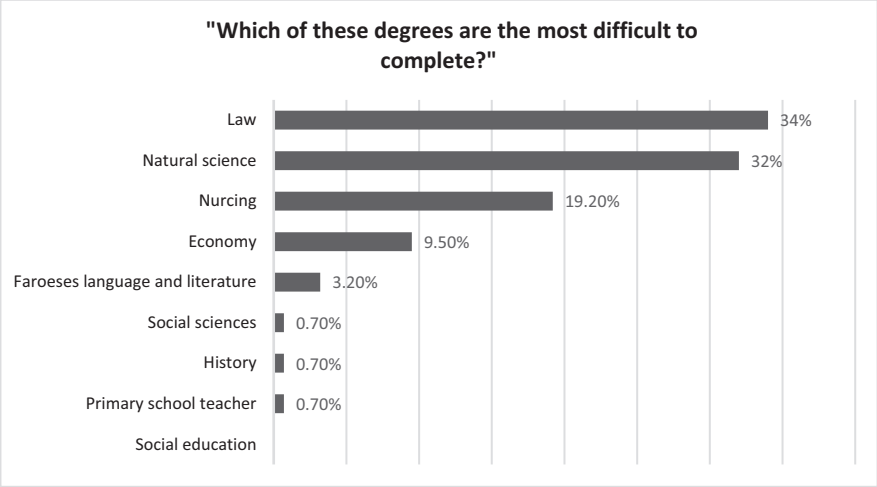

Fig. 9.8 "Which of these degrees are the most difficult to complete?"

than for those who study nursing or social education in the Faroes, where 44.8% and 25.8%, respectively, want to pursue further studies (Harryson, 2019).

To correlate recruitment with the academic reputation of the programme, the students starting in 2019 and 2020 were asked to choose the bachelor's degrees offered at the University of the Faroe Islands which was must difficult to complete.

Figure 9.8 says something about the prejudices new students in the teacher education programme bring to their studies. Comparing teacher education with classical university programmes as law, natural science and economics, they do not expect teacher education to be a difficult degree to complete. If teacher education is compared with nursing, which also started as an independent non-university profession-oriented degree until 2008, teacher education is still not seen as demanding (Harryson, 2021a). A survey made among the first-year students at the university's other four departments in 2019 showed the same result. Those who study law, economics, natural sciences, etc. at the other faculties, too, believe that teacher education is not a demanding course of study (Harryson, 2019).

Lastly, if correlating recruitment and the issue of theory-practice at the teacher education programme, the survey referred to above, showed that 61% of the first-year students expected that they would learn about the same from the theoretical part of the programme as from the four practicum periods. 28% expected to learn more from practicum, while 11% expected to learn more from the studies they did at the university (Harryson, 2021a). The expectation the students bring with them to the programme has a significant influence on how they evaluate the structure and content of the programme during their studies.

In conclusion, as for recruitment, the Faroese teacher education programme does well in comparison to many other programmes in the Nordic countries. It attracts many qualified and motivated applicants.

9.6 The Academicization Barometer

To determine how academic the teacher education programme is, the following factors are often considered:

- Is it a research-based university degree?
- Is the degree on the bachelor's or master's level?
- Do most of the instructors have research qualifications?
- Does the faculty produce significant research? (Harryson, 2018)

If the Faroese teacher education programme were weighed on academic scales, it can be first noted that a five-year master's degree is seen as the standard both in and outside the Nordic countries (Elstad, 2020). Therefore, considering the academic level, the Faroese four-year B.Ed. degree is at a middle level.[9]

Moving on to the relationship between taught lessons and independent study, the taught lessons were almost automatically reduced after the merger from about 28 lessons a week (Mikkelsen, 2020; Uttanríkis- og mentamálaráðið, 1991) to 12–15 lessons a week (Námsskipan, 2016). Even though this was a drastic reduction, the weekly lessons at the Faculty of Education are still comparable to many other Nordic countries (Elstad et al., 2020).

The academicization barometer also focuses on staff considering (1) how many of the staff have formal research qualifications, (2) what is the faculty's research production, and (3) whether the faculty actually is capable to offer the students a research-based programme. If we consider these at the Faculty of Education, an internal review at the university show that for the academic year 2020/2021, 24% of the staff at the faculty had formal research responsibilities and were required to research (Mohr, 2021). This is low if compared to the university's other faculties. It is also low compared to e.g., the teacher education programme in Reykjavík, Iceland, which has offered a master's degree in teacher education since 2008 (Harryson, 2018). But it is high if compared to the Danish degree in education, which is a profession-oriented bachelor's degree (EVA, 2018; Rasmussen et al., 2015).

The strategy plan for the University of the Faroe Islands states that between 2020 and 2024, 60% of the academic staff are to publish articles in peer-reviewed journals every other year (Fróðskaparsetur Føroya, 2020). An internal report for 2020 shows that the academic staff at the Faculty of Education find it difficult to live up to this goal, and it is the faculty with the lowest research output (Mohr, 2021).[10]

[9] A four-year bachelor's degree of 240 ECTS, has often been the compromise when professional programme, which include relatively long teaching placement, are reconstructed as university degrees (Harryson, 2018).

[10] There are several reasons for the low research output at the Faculty of Education, the most important being that (1) many of those that hold a PhD either hold leadership positions or work with continuing education programmes. For much of their time, (2) there is no full-time professor at the faculty, (3) the faculty does not have a research history, (4) a strong research milieu has not been developed at the faculty, and (5) most of the faculty's resources are used in the degree programmes and continuing education.

Considering the notion of "research-based teaching," international research shows the idea is ambiguous (Bonderup & Dolin, 2015; Hansen & Rieper, 2009; Sørensen et al., 2017). A questionnaire sent to university instructors in the Faroes, who took a course in teaching at the university level in 2019–20 and 2020–21 confirms this (Harryson, 2020b). If research-based teaching means that the instructor must be a researcher, or that the instructor is only to teach in his or her area of research, then it would prove problematic for a small programme like the Faroese teacher education degree as there are not enough people with a PhD in every discipline. But if research-based teaching means that students read and study research-based articles both in Nordic languages and English, and are allowed to conduct small research projects throughout their study, the Faroese degree stands a better chance of meeting the requirements of a research-based degree.

Finally, the academicization barometer may refer to the students' academic achievement upon completion of their studies. If we consider their B.Ed. project, the grades achieved speak loudly (Harryson, 2021c, 2022).

Figure 9.9 shows that even though the average grade varies from year to year, and even to the grades vary within the same year (between 02 and 12), the average grade for the B.Ed. thesis is quite high – markedly higher than at the Danish programmes (Koed et al., 2019).[11] The reports from the evaluation of several programmes clearly indicate that you have to be very cautious in comparing average grades across national boundaries, because evaluation criteria can vary considerably (EVA, 2017; EVA, 2018).

Above we have seen that the academicization barometer is more of a prism than a barometer revealing several aspects of the academic puzzle. In some areas, the Faroese degree lives up to the accepted criteria while it has some way to go in others.

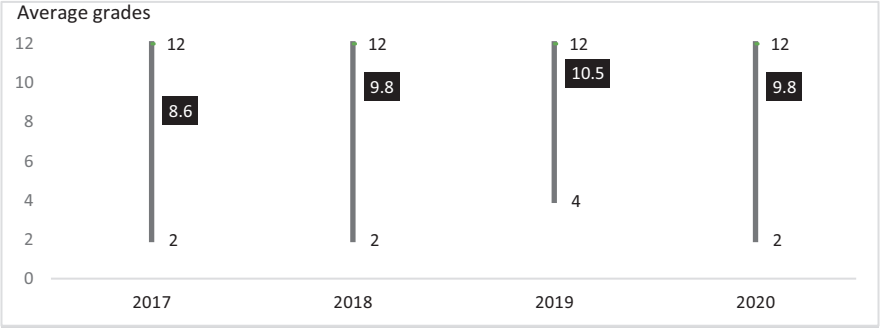

Fig. 9.9 Average grades

[11] A survey for the academic years 2018–2019 and 2019–2020 showed that 60% of the students choose to write their B.Ed. thesis within the fields of general education. A survey of the Danish programmes showed that 31% of the B.Ed. theses were written in the fields of general education, but also that the proportion varied from programme to programme (EVA, 2018).

9.7 The Pitfalls Barometer

The pitfalls barometer looks at inherent weaknesses in a degree programme. When considering teacher education through this lens, researchers in education often point out the complexity of teacher education, where the knowledge base is more heterogenous than many other fields of study (Crowe, 2008; Darling-Hammond & Liebermann, 2012). A preservice teacher must acquire many and very different competences in diverse disciplines, making it unrealistic for individuals to acquire it all during their studies (Harryson, 2018). Therefore, the lack of time to master this wide range of competences is perhaps the greatest weakness in teacher education.

When the Faroese teacher education programme has been critiqued over the past decade, the criticism has not focused on academic standards but that the programme is not sufficiently anchored in the Faroese school system. The critique has never been more visible and systematic than in October 2020, when the programme had its 150th anniversary. In this connection, the magazine of the Faroese teacher's union focused on the degree, representatives from the union, the student council and Faroese school leaders evaluating the current teacher education programme. What they found problematic included the following issues:

- the programme had become too academic, or at least not sufficiently practice oriented.
- the degree was too narrow and did not reflect the school schedule newly graduated teachers need to work with.
- the practicum periods were too short.
- the students did not receive enough in-house teaching a week.
- there was not enough permanent staff on the faculty, and that some school subjects were not represented in the faculty.
- instructors with no experience in the school system were employed at the faculty.
- the staff at the faculty did not conduct sufficient research in the Faroese school system.
- the teacher education programme had not been sufficiently financed since the merger with the university (Kjølbro, 2020a; Kjølbro, 2020b; Kjølbro, 2020e; Olsen, 2018).

This criticism is quite similar to those directed at other teacher education programmes in other Nordic countries (Harryson, 2018). Some of it can be based on concrete data while others are more due to academic preferences and educational ideology.

In a microsociety, the distance between various stakeholders and the media world and the political system is much shorter than in large countries. This means that ideas and suggestions about what should receive attention in both primary and lower secondary education and teacher education are regularly found in public forums requiring the Minister of Education to take a stand (Joensen, 2021; Strøm, 2020). What characterizes the debate is that the various stakeholders seldom offer any qualified suggestions on what should be taken out of the program if something new is to be introduced (Nolsøe et al., 2021).

A vital question regarding possible pitfalls is to what extent there is a correlation between (1) the subjects students select in their teacher education and (2) the school subjects that fill the schedule in the school system. A survey of all electives in the teacher education programmes between 2010–2020 showed that not all school subjects are equally popular among the students, and that the subjects with the greatest challenges in this structure are Danish, German, geography, visual arts, home economics and, to a lesser extent, religious education (Harryson, 2021b).

Another key question in terms of potential pitfalls circles around practicum. When students evaluate the various parts of the programme, a pervasive comment is that the practicum should comprise a higher proportion of the study. A survey of teaching placements for all second-, third- and fourth-year student in 2020–21 showed that 57% of respondents wished that the practicum were ´much longer` while 34% wished it were 'longer'.[12] A majority of respondents also pointed out that the practicum periods would be strengthened if they did it individually than in groups, which often is the case (Hansen & Harryson, 2021). The figure below supports this point, which reflects how the same students evaluated what they had learned most from when on placement.

Figure 9.10 shows that $^{2}/_{3}$ of the students learned most from teaching by themselves while $^{1}/_{4}$ pointed out the learning potential in observing a good practice teacher. The conference sessions, where the preservice teachers can discuss their teaching with their practice teacher and observing fellow preservice teachers teach, which has been a common practice at the faculty, do not score highly. A large survey

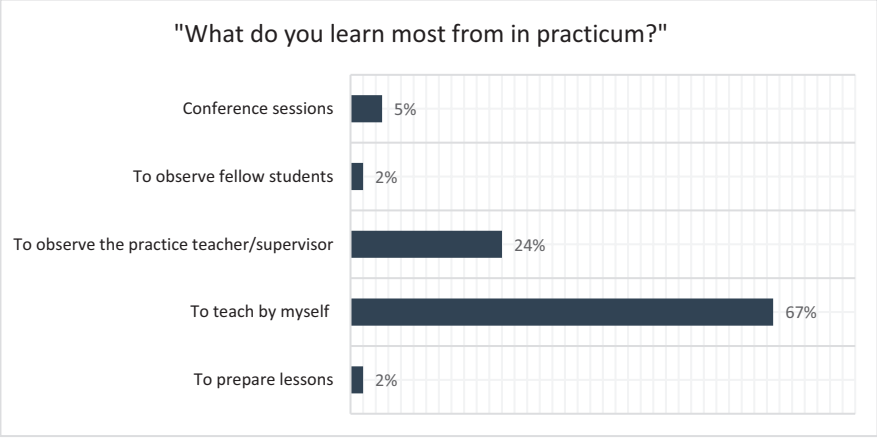

Fig. 9.10 "What do you learn most from in practicum?"

[12] Educational researchers agree that field experience is an important element in teacher education. But a research project from Australia shows that the quality of the practicum has at least as great an effect on the learning outcome as the quantity. And well-qualified supervisors are vital in this regard (Reynolds et al., 2016).

of the Faroese teacher education programme in the period 2007–2011 came to similar result (Hansen, 2012).

Finally, if the pitfalls barometer is linked to dropout - which is a challenge in many teacher education programmes in the Nordic countries - an internal university survey shows that between 2014 and 2021, the dropout rate for the teacher education programme was 21% in average (Dávadóttir, 2021). This is a low rate compared with the classical university degrees offered at the University of the Faroe Islands, where over half of the students drop out.[13] And the rate is also low if it is compared to the Danish and Icelandic teacher education programmes (Madsen & Jensen, 2020; Sigurðsson et al., 2020).

In conclusion, when the Faroese teacher education programme is measured against the pitfalls barometer, it experiences the same challenges as many other Teacher education in the Nordic region programmes. Teacher education is complex, and if you strengthen one part of the programme it may prove potentially detrimental to several other parts.

9.8 The Resilience Barometer

The resilience barometer puts the spotlight on two fundamental questions: (1) What are the prospects for employment on completion of the degree? (2) Can the newly educated teachers handle teaching on completing their degree – or do they leave their profession after a short time? These two issues will be discussed separately in this section.

Looking at the relationship between resilience and employment, we can first consider some data on the Faroese school system. The Ministry of Education says that in 2019–20, 843 teachers and 93 social educators were employed in the Faroese state school system (Tausen, 2020), and that during the academic year 2020–21, 35 untrained persons were on the wage lists, which is less than 5% of the total work force (Tausen, 2021). The number of untrained teachers in the Faroese school system is low when compared with other Nordic countries (Elstad et al., 2020).

In the period between 2008 and 2019, on average, 28 people per year completed their teacher education (Búskaparráðið, 2021). A large census of the Faroese population, conducted in 2010–2011, showed that in the coming 10–15 years, about 20 teachers will retire a year (Hagstova Føroya, 2011). Representatives for the teachers' union have pointed out for years that we educate too many teachers in the Faroes with the long-term consequence that many teachers will not find employment as teachers (Olsen, 2019). Though it is easy to point out that the number of

[13] A report from the student counselor shows, that from 2008 to 2021 there have been five main reasons, why students have dropped out of the teacher education program: (1) Wrong study choice, (2) academic challenges, (3) financial reasons, (4) mental health problems and (5) language difficulties if students do not have Faroese as their mother tongue or are unable to read Danish literature (Poulsen, 2021).

graduates a year is higher than how many teachers retire a year, an internal university survey shows that all graduates from the teacher education programme in 2019 found jobs directly related to their degree within 1 ½ year. Such a balance between an educational institution and the work market is highly unusual when compared to many other university degrees in the Faroe Islands (Dávadóttir, 2021), and exceeds the university's goal that 70% of all graduates should either have found relevant employment or have commenced further studies within one year of graduation (Fróðskaparsetur Føroya, 2020).

There are no recent studies to point to when linking resilience directly to teachers discontinuing their profession. But several factors suggest that compared to other countries, there are remarkably few newly educated teachers in the Faroes who leave their profession within a few years. A study of those who studied in the teacher education programme between 2007 and 2011 showed that 92.6% of the respondents taught either at a Faroese or Danish primary and early secondary school in 2011–12. Of the 7.4% who did not teach during that academic year, the majority were either female teachers that were on maternity leave or teachers who had taken up further studies. It is noteworthy that none of the respondents said that they had left the teaching profession because they were tired of it or felt that they could not manage it (Hansen, 2012).[14]

The resilience barometer is not only about how good the teacher education programme is at preparing the students for their future profession, but also about how well the newly graduated teachers are received in the school. With regard to this, the teachers' union and the Ministry of Education came to an agreement in 2016, which stated that newly graduated teachers would receive a mentor during their first year of teaching (FMR & FL, 2016). The contract states that the mentor and mentee each receive 40 hours in their work towards this. It is not specified what the mentorship involves, but the implicit goal is to reduce the practice-shock experienced by everyone entering a profession. To gain insight into the mentor programme, a small study was conducted of 22 teachers who had completed their degree in either 2018 or 2019. The study showed that 82% of the respondents thought that all newly educated teachers need to have their own mentor, and that 57% believed that 40 hours a year (i.e., one hour a week) was suitable (Solmunde, 2020).

When the respondents were asked to describe what had been the greatest challenges in their first year of teaching, they identified the following aspects:

- The finding of good and relevant teaching materials.
- Competency in using various IT programmes and interactive boards.
- The designing of the annual plan for their teaching.
- The cooperation with parents.

[14] This is interesting considering that there was no official mentor system in the Faroese school system at the time, and that the newly graduated teachers taught on average in (1) 4, 5 or 6 different school subjects, (2) 4, 5 or 6 different grades, and (3) about half of their lessons they taught in school subjects they had not specialised in during their studies (how much they taught in subjects they had not specialised in depended on the size of the school) (Hansen, 2012).

- Teaching in subjects they had not studied in their teacher education programme.
- The establishment of good relations with their pupils.
- The organising of lesson plans.
- The teaching of pupils with special needs.

Although these topics have been thoroughly discussed in the theoretical part of their degree, they still were highlighted as great challenges in practice. This points to the complexity of the theory-practice relationship in teacher education (Harryson, 2018).

In conclusion, the resilience barometer gives us insight into whether the graduates get a teaching job on completion of their degree and whether they can handle the teaching profession or are interested in it in the long term. The studies that have focused on this suggest that the Faroese teacher education programme scores highly on this barometer.

9.9 The Competence Barometer

The competence barometer focuses on teaching as a discipline. The goal of teacher education is to prepare students for the teaching profession. Therefore, the institutions that offer teacher education and the school system in which teachers practice their profession are always intrinsically related. If the pupils in a particular national school system perform badly in international tests, a rule of thumb is that the teacher education programmes must be partly responsible. The reasoning might go something like this: "The quality of teaching depends in large measure on the quality of the teachers; the quality of the teachers depends in large measure upon the quality of their professional education" (Turney & Wrigth I: Koester & Dengerink, 2001, s. 345). If you live in a country that only has one teacher education programme, the above quote carries a more powerful punch than if you are in a country that has several programmes.

When considering the quality of the Faroese school system, external and internal studies need to be distinguished from one another. Looking first at external test, the best indicator is the PISA-test, which the Faroese school system has participated in since 2006. The results of the most recent PISA-test are seen here:

Figure 9.11 shows that the PISA score of Faroese pupils in 2018 were markedly lower than the score of students in other Nordic countries. The difference was most marked in mother tongue and least in mathematics (Olsen et al., 2018). The lacklustre results undoubtedly say something about the academic level in Faroese schools – but something also suggests that the attitude many Faroese teachers have to the PISA concept plays a role. A questionnaire that supports this hypothesis was conducted among 81 new teachers that had taught between 1 and 5 years. The result showed that over 60% of the respondents did not believe that the PISA test was reliable in evaluating the quality of the Faroese school system. Neither did they believe that today's PISA results were able to predict the GNP of the Faroes in 10–15 years. The PISA test was instead described as a political project which had

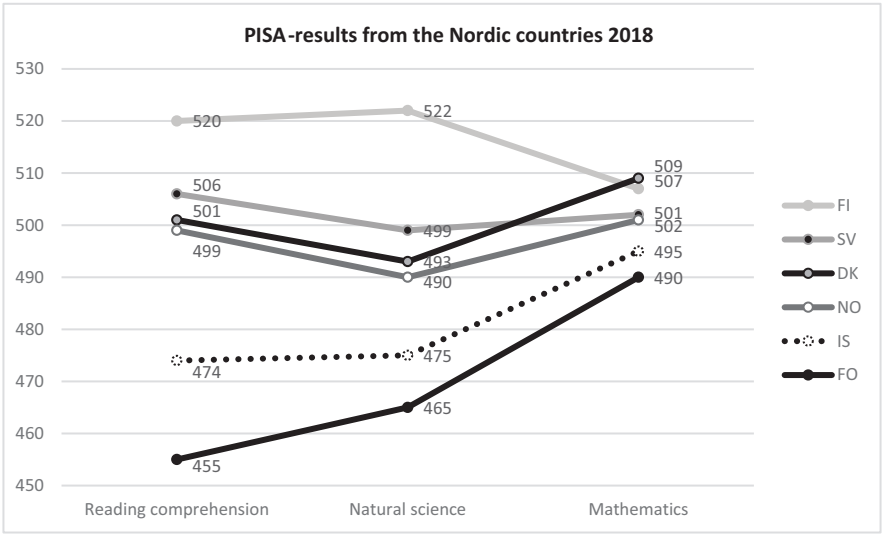

Fig. 9.11 PISA-results from the Nordic countries 2018

minimal support from Faroese teachers, and therefore had no influence on how lessons were constructed (Hansen, 2012).

The Faroese school system has participated in the PISA-survey five times.[15] And if you compare the results between 2006 and 2018, you receive a better insight into the development of the Faroese school system.

Figure 9.12 shows that even though the Faroese PISA results are not on level with the other Nordic countries, the Faroese school system has markedly improved over the 12-year period of Faroese participation. There are several reasons for the improvement of about 10%. The most marked political initiatives, which often are referred to are:

- The teacher education programme became a university degree in 2008.
- National tests in middle school in the mother tongue, mathematics and Nature and Technology were introduced in 2008.
- Nature and Technology was introduced in 2008 as s school subject in the middle school.
- New curricula for all subjects were introduced in 2011.
- Focused continuing education programmes were introduced:
- Reading guide teachers, 2008
- Dyslexia teachers, 2011 & 2015
- Mathematics guide teacher 2014
- Educational leadership, 2018

[15] The first PISA surveys received a lot of attention in the Faroese media world, and the criticism could be harsh (á Rógvi, 2011; Kjølbro, 2012). From 2015, the PISA survey has not received the same publicity – neither in the political system nor in the media.

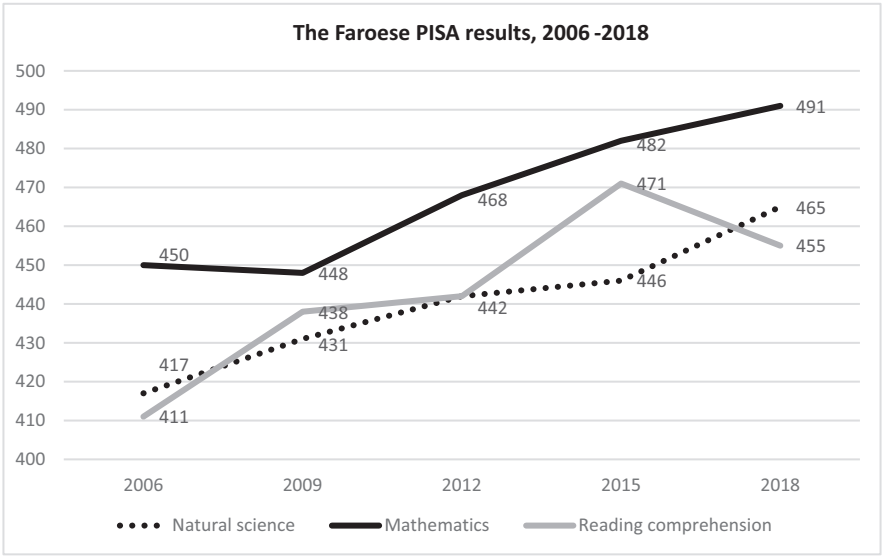

Fig. 9.12 The Faroese PISA results, 2006–2018

The teacher education programme has been involved in many of these initiatives, while experts from abroad have been used in others.

Turning to internal evaluations of the Faroese school system, a new study of the exams sat by pupils in grade nine in eight relatively large schools in the Faroes highlights the following issues:

- In written Faroese, Danish, English and mathematics, the average grades have been at the same level as in other Nordic countries (6.85 in average) between 2015 and 2019.
- Some schools score markedly higher than others – and that it is not unusual that the average grade is between 2 and 3 grades higher in one school than another.
- Girls perform markedly better than the boys - the difference is more than one grade.
- The difference between the three strongest and three weakest pupils in a normal classroom are very high, often between 8 and 11 grades (Harryson, 2020a).

The socioeconomic background of parents is not taken into account, but despite this, the results show that it is difficult to generalise when discussing the quality of the Faroese school system, since some schools perform markedly better than others, and some students get far more out of their school years than others. This is a challenge both for the Faroese school system and the Faroese teacher education programme.

In conclusion, the competence barometer can quickly become a competition barometer, where school systems in different parts of the world, and schools within a country, show off their strength in a variety of different school tests. If the PISA-survey is able to say anything directly about the quality of the Faroese public school

and indirectly about the quality of the only teacher education programme in the Faroes, then it says that the academic level is not adequate but that it is moving in the right direction.

9.10 Future Perspectives

The Ministry of Education has decided that the Faculty of Education is to be evaluated by an external committee before the end of 2022. The results of such an evaluation will undoubtedly influence the future orientation of the teacher education programme and initiatives that will be taken (Kjølbro, 2020c). In addition to this, the leadership at the faculty is working on strengthening the programme and improve the continuing education options for teachers.

In 2006, a politically appointed work group recommended that the teacher education programme would be turned into a 5-year master's programme within 10–15 years (Zachariasen, 2006). The Dean of the Faculty of Education has stated that this academic progress should be accomplished in the Faroes within the short term (Kjølbro, 2020d). Nevertheless, the decision to commence such a programme is a political one.

In 2018, a panel of experts, which analysed the Faroese Pisa results, recommended that the integrative teacher education model be supplemented with a consecutive model, where those, who already have a bachelor's or master's degree, can take a programme in education at the Faculty of Education, and in this way become certified as teachers (Olsen et al., 2018). This recommendation has not been considered seriously in the political system but must be viewed as a distinct possibility.

The leadership of the Faculty of Education is currently working on providing better options for continuing education for teachers. The continuing education programme, which has garnered most support among teachers, and which both the teachers' union and the study board have called for, is a practicum guidance teacher programme (Gásadal et al., 2021). A working group was formed in the spring of 2022 at the faculty that will work on a proposal on a combined programme for practice teachers and mentors. The plan is to launch the programme in the fall of 2022.

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Chapter 10
Teacher Education in Greenland

Lars Demant-Poort and Eyvind Elstad

Abstract Greenland, the world's largest island, has more than 50 settlements and towns scattered along the coastline, from Siorapaluk in the very north to Aappilatoq more than 2.100 km further south. The vast distances between settlements pose logistical challenges for both schools and for teacher education. Greenland has immense social problems; many children grow up in homes with alcoholism, abuse and violence. The cultural distance between pupils and schooling is often also an issue. Many school-related challenges concern schools' management, and teachers' competencies. Teacher shortage, especially in smaller settlements, is a significant problem. Furthermore, teachers are expected to teach a variety of subjects that they are not trained to teach. On top of the challenges to primary and lower secondary schooling, there is a lack of Greenlandic teachers at the higher secondary school level, caused by the unavailability of sufficiently educated teachers from Greenland. Moreover, teacher education faces challenges in creating the conditions needed for interaction between theory and practice. The country has a colonial past but attained self-rule status in 2009. The purpose of this chapter is to explore the evolution of Greenlandic education and further explore the development of Greenlandic teacher education and its challenges.

10.1 Introduction

Greenland [Kalaallit Nunaat] is the world's largest island, with an area of 2.5 million square kilometres, 80% of which is covered by the largest ice mass in the Northern Hemisphere. It has been populated for more than 4000 years by different

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cultures migrating from what is now Canada. The majority of the current population – the Thule culture – are descendants of the latest migration, which took place about a 1000 years ago. The migration of the Thule happened at about the same time as the Norse arrived in Greenland, coming from Iceland and settling in the green fjords of south-west Greenland.

Greenland has a colonial past (Gam, 1968; Goldbach & Winther-Jensen, 1988) but is today an autonomous and self-governing area in the Commonwealth of Denmark, the Faroe Islands and Greenland with a separate parliament and government. In 1979, Greenland was granted home rule status, and in 2009, after a referendum, Greenland attained self-rule status.

There are currently around 56,000 inhabitants living in 18 towns and 53 settlements scattered along the coastline from Siorapaluk in the farthest north to Narsajimit in the south to Ittoqortoormiit on the east coast. Only 40% of the population have an education above grade ten (Department of Education, 2020), meaning that people from the outside – often Denmark – fill many jobs requiring higher skills. Greenlandic Inuit, are recognised and self-identified as Indigenous, and everyone born in Greenland have Danish citizenship. About 89% of the population are from Greenland, while 8% are from Denmark. Approximately 1% come from the other Nordic countries and 2% from other parts of the world (Statistics Greenland, 2021).

The contemporary structures of education in Greenland have roughly the same pattern as in Denmark: 10 years of *Folkeskole* (compulsory primary and lower secondary school under municipal jurisdiction for pupils aged 6–16); however, the content and curricula in Greenlandic schools have been under Greenlandic legislative and municipal control since 1980 (Demant-Poort, 2016; Lennert, 2018).

Secondary school is divided into vocational and academic preparation tracks (Greenland Department of Education, 2020). The tertiary education system is mainly centred on the University of Greenland [Ilisimatusarfik], which offers a limited range of courses and subjects: language, literature and media (Greenlandic), theology, social studies, economics, law, cultural and social history, journalism, translation and social work. Among these higher education options is a 4-year teacher education programme that is similar to a Danish teacher education programme.

Greenland inherited its education system from Denmark, including the length of education, which creates sustainable structures for schools and teacher education. It is the Greenlandic authorities and institutions that make decisions about the content of education within the established structures, but the complexities of a colonial past and of attempts to assimilate Greenland into Danish culture are not easily remediable.

Greenlandic society faces a number of economic and social challenges. Greenland currently receives an annual block grant from the Danish state – equivalent to about 40% of Greenland's gross domestic product in 2020 (Greenland Economic Council, 2020) – but the size of the grant is expected to decrease over time. This creates formidable economic challenges for Greenlandic society, where the idea of a future of full independence is alive and enticing for many. Independence depends on a culturally sustainable education system based on Greenlandic culture and values (Lennert, 2021).

The purpose of this chapter is to explain the evolution of Greenlandic education and its challenges and further to explore the evolution of Greenlandic teacher education and its challenges. It opens with a brief discussion of the role education can play in shaping the future of Greenland. The second section is centred on the challenges of schooling today, and the third describes the geographical and historical context of teacher education in Greenland. The fourth section deals with the development of teacher education as a university degree in Greenland, and the last section is a description of the current structure of teacher education in Greenland.

10.2 Education and the Future of Greenland

As in any other society, there are different opinions on how Greenland's societal challenges should be addressed. Greenland's political parties disagree about how society should look like today and in the future. Should Greenland seek full independence from Denmark as soon as possible? Should it further evolve its relationship with Denmark? Should Greenlandic society focus on businesses that use natural resources like mining and fishing and develop tourism? Should the emphasis be placed on preserving a pristine environment or should the future of Greenland be based on all of the above? These tensions lie beyond the aims and scope of this chapter, but those same patterns also concern schooling and teacher education, although indirectly, because a fully developed society rests on an educated population. Some of these patterns of tension have similarities with teacher education in other countries, but the situation in Greenland has unique characteristics due to, among other things, the enormous geography of the country, a sparse population and its immense social problems, such as a high suicide rate (Olano & Rasmussen, 2019) and care failure of children (Bjerregaard & Larsen, 2016), that influence teachers' work.

From this perspective, educational institutions stand as central social entities that must ensure broad competence for future employees, for business leaders and for citizen participation in democratic processes. Educational institutions must also facilitate deeper and more specialised competence for performing professional tasks. Education thus requires a great deal of effort to build Greenland's future society: in the words of Darnell and Hoem (1996), 'education is at the forefront of a new national purpose and character' (p. 247). How should the education of the generation now in school contribute to meeting the needs of tomorrow's Greenland? Education is not the only factor that will impact Greenland's future, but it is an important one.

10.3 Challenges

A main challenge in today's schools is that education quality (measured by testing in grades three, seven and ten through standardised national tests and oral examinations) has remained low over time. Greenland's primary and lower secondary

schools have faced a crisis for several years because many youth reach late adolescence without having achieved the most basic life skills, as measured by standardised testing (Lennert, 2021; Statistics Greenland, 2020). The crisis of school achievement is most evident in math, where about half of students do not pass or barely pass the grade ten exam in written math (Statistics Greenland, 2020). A large majority of those who graduate have one or more course grades that do not meet the admission requirements for a secondary education (Department of Education, 2015a, b). More than half (62%) of the population have primary and lower secondary school as their highest level completed (Statistics Greenland, 2020), and in 2019 59% of youth between 16 and 18 did not take part in any form of education (Department of Education, 2020). Only 29% of Greenland's youth between the ages of 16 and 25 were active in education (Statistics Greenland, 2020).

Human resources are underused when a large proportion of the Greenlandic population is neither employed nor active in the education system. There are several reasons for the current situation, including language where Greenlandic is the main language in primary and lower secondary education, Danish is the main language used in upper secondary school. Access to secondary education after the 10 years of compulsory schooling is thus somewhat limited by language barriers. Though Greenlandic and Danish have equal status under education legislation, most subjects in primary and lower secondary education are taught in Greenlandic, especially in smaller towns and settlements, thus limiting students' exposure to Danish and English. After graduating from lower secondary school at age 16, students who enter high school are likely to encounter a system in which almost all subjects are taught in Danish because most of the teachers are Danish.

The lack of Greenlandic teachers at the high school level is caused by the unavailability of sufficiently educated teachers from Greenland:

> In the context of Greenland, the access to education for those who cannot speak Danish at a sufficient level is severely limited… in Greenland today, many children and families, especially those who live in smaller settlements and only speak Greenlandic, find themselves in an unenviable position: on paper included in the country's development project vis-á-vis the education system, but in reality, excluded some meaningful opportunity given the poor quality of that system. (Lennert, 2021, p. 205)

Though Greenlandic and Danish have equal status as languages of instruction, it is obvious that a school system that mainly operates in one language, Greenlandic, limits students' access to the language of educational mobility. At the University of Greenland many teachers come from outside Greenland, whether or not that poses linguistic challenges for university students is unknown.

A further challenge to schools is the teacher shortage, especially in smaller towns and settlements. In most schools with a teacher shortage, teachers teach a variety of subjects they are not trained to teach. However, schools in larger towns use a different approach to administer teacher qualifications. Two surveys from 2010 (Dorph, 2010) and 2016 (Demant-Poort, 2016) both document that teachers were teaching subjects they were not qualified to teach. This is often related to a very rigid administrative structure in schools, with teachers 'locked' into one of three steps.

The 10 years of public schooling are divided into step one (grades one to three), step two (grades 4–7) and step three (grades 8–10). Though there is no legislative requirement to lock teachers into only one of these steps, this is most often the case. For example, a fully qualified English teacher can teach biology in grade eight but not English in grade seven, while a fully qualified biology teacher teaches English in grade seven but not biology in grade eight (Demant-Poort, 2016). Municipalities and schools are not required to ensure that teachers are teaching the subjects they are actually trained to teach. Aside from the above two surveys, there are no data available on how teachers' subject competencies are deployed in schools.

Since the early 1980s, in a yearly publication from the Agency of Education, teachers' professional qualifications have been documented by only three variables: fully trained teachers, non-trained teachers and whether a teacher is able teach in Greenlandic. All other possible qualifications for teaching students are not monitored on a nationwide scale. There are no data available on how many mathematics teachers teach mathematics, how many English teachers teach English, or whether math teachers, for example, teach students in math. This constitutes a systemic challenge to schooling and its evaluation in Greenland: how is it possible to assess student outcomes when there is no monitoring of how teacher qualifications are – and are not – used? Additionally, this makes it difficult for student teachers to make an informed decision on what their teaching subjects should be or what subjects are most needed in the schools in Greenland's five municipalities.

The teacher education programme today faces some difficulty in attracting enough qualified students from Greenland's four high schools, a problem that will only escalate in the near future as more and more teachers retire. According to an estimate from the Agency of Education (Grønvold, 2018), there will be a teacher shortage of 300 (or a third of those required) by 2028, on top of the 150 or more untrained teachers [*timelærere*] who currently work in settlement schools and schools in smaller towns.

10.4 The Historical and Geographical Context of Teacher Education in Greenland

Greenland is isolated not only by its far northern location but also internally, as every town and settlement is separated by vast distances, and transport between towns and settlements is only possible by boat, snowmobile, dogsled or plane or helicopter. Since the end of World War II, Greenland has gone through significant changes, evolving from a society based primarily on hunting sea mammals to fishing for cod, halibut and shrimp. The shift from hunting to fishing meant a complete change in the country's economy (Hendriksen, 2013); the idea behind this transition was economic growth. Fishing, primarily for halibut and shrimp, is now responsible for 95% of Greenland's total exports. The shift from hunting to fishing was part of what is known as G50 politics. The monopoly of The Greenlandic Royal Trading

Company [Den Kongelige Grønlandske Handel] was abolished in 1950, but the company was still responsible for almost all imports to the country, leading to uniform pricing across the country.

Four periods in Greenland's past are important for its development in schooling and teacher education: (1) the pre-colonial period, (2) the colonial period (1721–1953), (3) the modernisation period (1953–1979) and (4) the home rule period, which began in 1979. The 2009 implementation of self-government has not had an impact on either schooling or teacher education.

Before colonisation in 1721, Greenlandic traditional education was informal and a vital social activity. To conceptualise learning in a pre-colonised Greenland, it is necessary to look at informal learning activities in Indigenous communities today. Subsistence activities remain a vital cultural sign in Greenland (Christensen, 2012; Demant-Poort, 2016; Poppel, 2015). Several concepts have attempted to frame the transfer of knowledge that occurred between generations in close contact with the environment. Aikenhead and Ogawa (2007) use the concept of 'ways of knowing', which is a variation of interconnected epistemologies strongly tied to the place where one lives. Cajate (1999) writes that 'Indigenous ways of living in nature are strongly place based', meaning that learning in an Indigenous community was linked to a specific place, such as a particular hunting ground. In addition, the concept of traditional ecological knowledge is used to describe Indigenous epistemology (Sutherland & Henning, 2009).

Since the first half of the 1700s, there has been some kind of organised, formal, Western schooling in Greenland. In 1721, Hans Egede – a Norwegian minister– came to Greenland with intension to preach Christianity to the local population (Nielsen, 2021), and to reincorporate this country [Greenland] into the Kingdom of Denmark and Norway (p. 189). To facilitate content for his teachings Egede learned Greenlandic, and in 1723 'he drafted his first written catechism in the Greenlandic language' (Nielsen, 2021, p.190). This was more or less the beginning of education in Greenland. In the years that followed, children and adults were taught basic reading skills in their own language so they could read the catechism. In the 1700s, trading stations and 'colonies' [*kolonier*] were established from Nanortalik in the south to Upernavik in the north. Ministers and catechists sought to educate the population by teaching them to read and write. In 1845, a teacher education college – Ilinniarfissuaq ('The great place for learning') – was established in Godthåb (now Nuuk), taking physical form in 1847 when the first students began their studies and took up residence in the minister's house. The catechists were taught with the goal of sending them to settlements along the immense coastline to teach children to write, to read the catechism and to do basic mathematics. In 1907, a new building for the college was constructed. Through 2009, the building was featured on Nuuk's coat of arms; it remains the teacher education programme's main building.

From the 1950s onwards, enormous efforts were expended to combat tuberculosis. Through the end of the 1940s, tuberculosis had been responsible for one third of all deaths in Greenland (Kristiansen, 2004). A sanatorium was established in Godthåb, and a small hospital vessel visited all inhabited places, a number that totalled 159 in 1944 (Kristiansen, 2004, p. 18), to document incidents of

tuberculosis. In the late 1940s and 1950s, new housing was built, and the number of tuberculosis incidents fell. As a positive result of the effort, the population of Greenland grew rapidly. At the time, teaching in many settlements and small towns around the coast was the job of locally trained teachers and catechists, along with a few teachers and priests from Denmark. However, with the growing number of children, there was also an increasing demand for teachers, a demand that had to be met with teachers from Denmark. In 1953, Greenland formally moved from being a colony to a county of Denmark – which officially became the Commonwealth of Denmark, Greenland and the Faroe Islands. Aside from a population increase, the 1950s and 1960s were also years of rapid development in Greenland; small settlements were abandoned as people moved to larger towns.

In 1979 Greenland was granted Home Rule Status, and the first area of responsibility transferred from Denmark was public education. In 1979 the first school act from the Greenlandic Home Rule was passed (Home Rule, 1979), which meant a change in the discourse on schooling. Greenlandic became the official language of teaching. From the 1980s onwards, there was political pressure for schooling in Greenland to be based on Greenlandic values and ideology (Hindby, 2004). This was realised through elective subjects such as hunting, sewing and fishing, which were taught alongside subjects such as Greenlandic, Danish, mathematics, social studies, and history. Hunting was the only elective subject divided into a *boys* and *girls* content (Kultur-og Undervisningsdirektoratet, 1985). Boys were to train in constructing kayaks, making basic engine repairs, training in outdoor survival and so on. Girls were to be taught in skin sewing, cooking, preserving berries and the like. These are considered traditional learning activities, as they reflect a unique culture based on subsistence hunting (Demant-Poort, 2016; Nuttall, 1992; Poppel, 2015). The major change in schooling after 1979 was a heightened focus on the Greenlandic language. It was no longer viewed as just one of several subjects, but as *the* teaching language for all subjects other than Danish and English.

The strong focus on Greenlandic was also evident in the requirements applying to the teacher education college. Before home rule, students applying to the teacher education college had to pass a test in Greenlandic (written and oral), Danish (written and oral), arithmetic (written and oral), religious knowledge, history, geography, biology, natural history, mathematics, singing and English or German (Nalunaarutit, 1964). According to the 1979 act on teacher education, applicants had to pass the Higher Preparatory Examination in Greenlandic: 'Admission to the college is conditioned on the applicant having passed the Higher Preparatory Examination in the subject Greenlandic or having passed the core subjects in the Higher Preparatory Examination in Greenlandic and with limited optional subjects' (Nalunaarutit, 1979). The focus on Greenlandic for admission to the teacher education college was extended in the 1989 act on teacher education (Nalunaarutit, 1989).

The sole focus on Greenlandic for admission to the teacher education college has disappeared over time. In the academic regulations on teacher education, requirements for applying to the programme are now a high school diploma with a grade point average of at least 7 (a C average). In the 2002 school act, Greenlandic is no longer the sole teaching language; teaching now takes place in both Greenlandic

and Danish, which have equal status, at least from a legislative perspective. However, it is worth speculating what level of other languages students are exposed to, as the Agency of Education only documents and report on the percentage of teachers who are able to teach subjects in general in Greenlandic (Department of Education, 2021).

Requirements for applicants in 2021 are similar: a high school diploma, but with the addition of minimum grades in specific subjects, such as an A-level in Greenlandic with a grade minimum of C/7 for Greenlandic and Danish and B-level with a minimum grade of D/4 in mathematics and English. In all other subjects, there is a minimum of levels C and D/4 (Institute of Learning, 2018).

Between the beginning of the 1980s and 2021, there has been a slight increase in the number of students graduating as teachers, from around 20 per year to around 30. Within the same period, there has been a decrease in the number of teachers from Denmark, from 350 in the early 1980s to fewer than a 100 in the late 2010s. In the 2020–2021 academic year, there were 1053 teachers in Greenland's 73 public schools and 7400 students from grades one through 10, a 14% decrease in student enrolment since 2009–2010 (Agency of Education, 2010, 2021).

10.5 The Teacher Education Programme: The Development of a University Degree

In the early 2000s, teacher education in Greenland was on the verge of something new. In 2001 parliament decided to build a university campus that would merge the existing university, Ilisimatusarfik, with the non-academic teacher education, journalism and social work programmes (Home Rule, 2007). Ilimmarfik, the new university campus, opened in 2008.

The intentions to craft a more academic teacher education degree implied that future teachers would be both practitioners and able to operate on a more reflective academic level. In 2009 Greenland saw its first Bachelor of Education graduate. Since 2009, Ilisimatusarfik has graduated more than 450 teachers (Personal communication, Student office, Institute of Learning).

Has the shift to a more academic profile of teachers had a positive influence on overall student performance in schools around the country? In the early 2010s, student performance began to show a decline. This was visible in the final tests after grade ten. In 2015, the Department of Education engaged with The Danish Evaluation Institute (EVA) to evaluate public schooling within the context of the 2002 school act. The report's conclusion points to several reasons why students seemingly do not perform as intended: for example, a lack of teacher–parent collaboration, teachers who do not understand the national curriculum and the inappropriate organisation of teachers across the 10 years of schooling. The 2015 EVA report spurred an evaluation of the teacher education programme, initiated by the university administration.

Ilisimatusarfik set up an expert panel and collected data through interviews with teachers and students and analyses of BA theses. The evaluation showed that the programme had several serious quality challenges and had not satisfactorily met the need for qualified teachers in public schools. Many graduates were not educated well enough to work as teachers in primary school, and the academic level of many students was too low for their teaching subjects. The evaluation also showed that in several major subjects, the grade point average of the students' final exams was too low and that a relatively large number of students either failed or obtained only a low grade (EVA, 2016). In some language subjects, the academic level was low and curricular requirements for academic content were not always fulfilled in the teaching. However, the school practice element was well structured; there were five internship periods, each with a different focus. The student teachers were happy with that feature of the programme. However, the evaluation showed that there was limited contact between teacher education and the internship schools and insufficient mechanisms to ensure that the quality of the internships was in order.

In 2012 the Institute of Learning opened up for a new trajectory on its path towards being a research-based teaching institution; on January first 2012 the institute's first PhD-student was employed. As of 2021 two PhD students have defended their dissertations [both in 2016], and three more are on route towards their doctoral life in educational research in Greenland.

10.6 Teacher Education Programme in 2021: The Current Structure

Following the publication of the evaluation, a 2-year plan for modifying and improving the programme was initiated, and on 1st September 2018 the current curriculum was put into operation (Studieordning, 2018).

Teacher education at Ilisimatusarfik is a 4-year programme, consisting of 240 ECTS at the Institute of Learning, where teachers will be qualified to teach three subjects. There are no statistics, however, documenting what subjects are sought by schools, so student teachers select their teaching subjects based solely on personal interest.

The current structure of the teacher education programme is centred on a range of pedagogical and professional subjects (*professionsfag*) throughout all 4 years, along with three teaching subjects.

One of the major innovations in the curriculum was the introduction of language tracks. A mandatory subject was developed between 2016 and 2018 to provide student teachers with the tools and skills necessary to include language in all teaching; the central idea is to heighten their understanding of the role language plays throughout the school career. A second change based on the 2016 evaluation was special education changing from a major subject that students could choose to a mandatory subject for all student teachers. This was called for by municipalities, the teachers'

union and individual teachers, who expressed a need for theoretical and practical knowledge on how to work with students with emotional and/or psychological challenges.

The 2018 curriculum also meant a change in student teachers' field experiences. Aside from the regular 19 weeks of teaching practice in the 4-year programme, student teachers in year three are now teamed up with a trained teacher at a school in Nuuk on a weekly basis throughout the school year, with the aim of obtaining a deeper understanding of the teaching profession.

When teachers graduate from the programme, they are qualified to teach three subjects; however, as documented earlier in this chapter, teachers often teach subjects they are not qualified to teach, partly because on the municipal level, there are no restrictions or even guidelines on what subjects teachers should teach.

The teacher education programme is divided into two categories of teaching subjects: 50-ECTS subjects and 35-ECTS subjects. Every student teacher must choose two 50-ECTS subjects and one 35-ECTS subject; Greenlandic is often the most sought for subject as one of the former. Often this comes down to an understanding of Greenlandic as being the 'easy' choice because it is their mother tongue.

10.6.1 Recruitment

The teacher education programme often has to turn down applicants (The Danish Evaluation Institute, 2016), when they do not meet the application criteria. Most people apply to the programme on the basis of a high school diploma. Until the 1980s, the teacher education programme was the highest degree a student could attain in Greenland. Training to be a teacher was regarded as the most prestigious course, and several of the founders of home rule were trained teachers. Today, the requirements for applying to the programme are a grade point average of 5.5 on the 7-point grade scale[1] (Curriculum, 2018); for comparison, admission to a Danish teacher education programme is 7.5 on the same scale (The Danish Evaluation Institute, 2016).

However, student teachers enter the programme from diverse backgrounds. Relatively few student teachers arrive on a straight trajectory from high school; some have worked in the trades or held odd jobs between high school and teacher education, while others have worked as substitute teachers for several years or completed other university degrees. However, there are no systematic data that to tell the full story of Greenlandic student teachers' previous educational attainment.

As in most other Nordic countries, the teaching profession and student teacher applicants are dominated by women. In the past 10 years, the proportion of male to female student teachers has been around 1 in 5. As for age distribution, student

[1] The 7-point grade scale has −2 as the lowest grade and 12 as the highest. Complete scale: −2, 0, 2, 4, 7, 10, 12; the failing grades are 0 and − 2.

teachers in general are older than in other university programmes. The average age for graduating student teachers, around 30, has changed only slightly in the past 10 years.

Student teachers apply to the programme for a variety of reasons. The teaching profession in Greenland, though often in the line of fire due to poor student performance, also essentially guarantees a job. While job security is important to teachers, a second dimension is that a teaching degree is one of the few university qualifications to offer access to positions in the small towns and settlements from which many student teachers come.

10.7 Discussion

In this chapter, we have emphasised the complex patterns of tension between the various considerations of Greenland's society, which both pose enormous challenges and offer exciting opportunities. The transfer of decision-making power in key areas of society from the Danish authorities to the Greenlandic self-government authority has ensured democratic governance and decision-making autonomy for the population of Greenland in schooling, health, taxes, regulation of hunting and fishing and so on (Statsministeriet, 2012). Democratic processes have functioned within the established structures, but there remain challenges in Greenlandic society that are much different from other Nordic societies. Greenland has one of the highest suicide rates in world, and one third of all children grow up in homes with alcoholism, abuse and violence. Between 20% and 40% (depending on age) have experienced sexual abuse (Larsen et al., 2019).

Aside from the language issues involving Greenlandic and Danish, schools emphasise cross-cultural encounters and mutual respect to achieve cultural synthesis, which is a starting point for helping society develop further and a feature that is in line with the Nordic school model's focus on equality and shared experiences across different groups. The school is a social institution that serves as an important foundation for future social development and can contribute to the self-image of Greenlandic students and their retention of cultural identity. A comprehensive evaluation of Greenland's primary and lower secondary schools (The Danish Evaluation Institute, 2015) showed that schooling faces a long list of challenges, which together are reflected in the fact that students leave school with poor grade point averages and that only just over a third of students immediately continue in the education system. Some school challenges are about management, municipal administrations and parental support, but the evaluation also points to the teachers' competencies and actions as essential parts of the challenge (Lennert, 2021). The schools' challenges are indirectly the challenges of teacher education, which prepares prospective teachers.

A special difficulty for Greenland is the geography of its scattered settlements, which creates several issues for schools and teacher education that do not have a readily available, let alone ideal, solution. The school system has about 7500

students in 73 schools spread along an immense coastline. The vast distances between settlements and towns pose significant logistical and financial challenges.

The goal of teacher education – graduating enough qualified teachers to meet the foreseeable needs of Greenlandic schools – is already not being met, and 300 teachers (a quarter of the number today) will retire from their positions within the next decade. In addition, teacher education in Greenland has the same challenges as other Nordic regions in creating the conditions needed for good interaction between theory and practice – between on-campus teaching and classroom experience. Creating positive interactions between very different institutions like a school and a teacher education programme can be demanding, and Greenland's scattered settlements make it particularly difficult to create field experiences for student teachers in the most remote areas. Technological development has made digital communication easier, and teacher education in Greenland had sought solutions to the challenges posed by scattered settlements even before the COVID-19 pandemic; distance learning for both schools and teacher education appears to be a viable, or at least promising, route to practical solutions (Øgaard, 2019).

Securing a broad portfolio of education courses in an institution with relatively few students creates major challenges that are partly due to the financial and qualification disadvantages of operating on such a small scale. Whether enhanced collaboration across teacher education in the Nordic region institutions can help reduce these challenges is an open question, and whether efforts towards closer co-operation between the Nordic countries and their autonomous territories is also relevant. Weaknesses in the teacher education programme were noted in an external evaluation (The Danish Evaluation Institute, 2016); this criticism was harsh, but it also created momentum for a change, and in 2018 the teacher education programme saw a new curriculum, with a new view of accountability and evaluation.

Creating a solid school system under Greenlandic conditions is far more complex than what can be measured through, for example, a PISA survey,[2] and the fact that Greenlandic pupils may or may not obtain high scores in international comparisons can be explained by the fact that the notion of school quality has its own meaning among the Greenlandic population. Nevertheless, the challenge remains developing schools that are as *relevant* as possible for that population, and research on Indigenous schooling emphasises that the cultural distance between pupils and their school must not be too great, lest the challenges faced by the pupils become too difficult to manage (Darnell & Hoem, 1996).

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[2] Greenland has never taken part in international school surveys.

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Chapter 11
The Long Road to Sámi Teacher Education

Eyvind Elstad

Abstract *Sápmi* is the traditional term for the historical settlement area (the northern areas of Norway, Sweden, Finland and Russia) of the Indigenous people of this area, the Sámi. The school systems in Sápmi were imposed by Western educators and missionary workers in the eighteenth century. The road to a good Sámi school has had more than its fair share of obstacles, which is often a common experience at intersections between Indigenous peoples' cultures and attempts by Western authorities to influence the mindsets and behaviour of Indigenous people. In the face of assimilation pressures, many Sámi lost their language and identity as a cultural minority. However, in the 1960s and 1970s, a new direction of Sámi education arose: the Norwegian, Swedish and Finnish education authorities decided that Sámi learners should have the opportunity to choose education in a Sámi language (of which there are several languages) in addition to receiving teaching in school subjects. Although the long road to Sámi teacher education has been a winding and tortuous path, today it is offered by two institutions (Sami University of applied sciences and Nord University). However, there are still challenges in obtaining enough teachers who have mastered Sámi languages.

11.1 Introduction

The Sámi are the Indigenous people of the northern part of the Scandinavian Peninsula (Norway, Sweden, Finland) and the Kola Peninsula (Russia). Precise numbers for Sámi residents in this area are unavailable, but there are about 80.000–100.000 Sámi people[1] worldwide:

[1] http://www.samer.se/samernaisiffror.

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- In Sweden, there are an estimated 6000 Sámi who speak Northern Sami. Southern Sami and Lule Sami have about 500 speakers each. Pitesami and Ume Sami are spoken by about 40 and 10 Sami, respectively (Lindmark, 2021).
- about 50.000–65.000 in Norge[2]
- about 10.000 in Finland (but only 1992 were Sámi-speaking individuals in 2018, Statistics Finland, 2018).
- about 1.700 in Russia

Only a minority of Sámi speak the Sámi languages. Precise numbers are unavailable. There are ten Sámi languages (Sammallahti, 1998) that form their own language group in the Uralic language family.

There are similarities in how Norwegian, Swedish and Finnish societies have chosen to create conditions for viable Sámi cultures by promoting the establishment of Sámi parliaments, supporting Sámi education and so on. The representatives of Russian society have chosen a completely different approach, and Russia is thus an outlier in this context (Scheller, 2010; Zmyvalova & Outakoski, 2019).

The Norwegian, Swedish and Finnish education authorities have all decided that Sámi learners in schools can choose education in a Sámi language in addition to receiving teaching in school subjects. The education of Sámi learners is to take place within the same structural framework as other learners in those countries.

Norway has gone furthest in designing school subjects adapted to Sámi conditions in addition to offering instruction in Sámi languages. This means that Sámi students are taught in whole or in part in Sámi languages. Sámi teacher education programs exist for schools to enable to offer teaching in Sámi. This teacher education is not only about Sámi languages and Sámi literature in the Norwegian context, but also a wide range of school subjects that are adapted to Sámi conditions (Sámi curricula for science, social studies, music, food and health and so on).[3] The content of schooling is to some degree adapted to everyday Sámi life and culture. In Sweden and Finland, Sámi education is more about the Sámi languages and the Sámi culture; that is, it is confined to language learning. The purpose of this chapter is to explain the evolution of Sámi education and its development over time and further to explore the long way to Sámi teacher education. As a representative of the majority society, I see Sámi education and culture as fascinating and interesting, but as a scholar I lack personal experiences that might help me understand Sámi conditions from the inside.

[2] 14,084 people voted in the Norwegian Sami parliamentary elections in 2021. About 32% of the voters talked one of the Sámi languages (Selle, 2020).

[3] Norwegian pupils' curricula include material on Sámi conditions; for example, pupils should be able to "explain the Norwegianization of the Sámi and the national minorities and the injustices they have been exposed to, and reflect on what consequences it has had and has at the individual and social level" and "give examples of traditional Sámi knowledge of nature and discuss how this knowledge can contribute to sustainable management of nature." (https://www.udir.no/laring-og-trivsel/lareplanverket/). The Sámi curriculum was developed in collaboration between the Norwegian education authorities and the Sámi parliament (Sollid & Olsen, 2019).

In order for schools to operate with Sámi content, teachers who speak the Sámi languages are needed, and in order to ensure that teachers have the necessary competence, Sámi teacher education is needed. This chapter explains the long road to Sámi teacher education programs.

Sámi teacher education is currently offered by two institutions: the Sámi University of Applied Sciences (Sámi allaskuvla, established in 1989) and Nord University, both in Norway,[4] but Sámi is also a university-level subject in Sweden and Finland. Students from Norway, Sweden and Finland take Sámi teacher education. Therefore, we can say that Sámi teacher education is a common concern in those three countries. The Norwegian state finances a significant part of Sámi teacher education programs, but the Swedish government also provides funding.[5] Although Sámi teacher education programs exist today, these arrangements have a complex prehistory, which is detailed below. Furthermore, Sámi teacher education will also be affected by what the future brings for Sámi education, the Sámi culture and the Sámi as a people.

Although there has been a revitalization of Sámi identity and a growing interest in Sámi conditions in recent decades (Sarivaara, 2016), Sámi education is under pressure for several reasons. Among other factors, many Sámi live in places where Sámi is not the primary language. Although there are some vocational and higher education subjects in Sámi, education in that language is not offered in a broad portfolio of subjects. This means that many Sámi pursue education and later settle in places where they must speak another language (Keskitalo, 2020). The space for the Sámi traditional way of life has also narrowed, but it still exists. However, there are several examples of parents with Sámi ancestry living in large cities (Selle et al., 2020) wanting their children to learn Sámi as a bilingual strategy. There are examples of schools in large cities in Norway, Sweden and Finland where Sámi is offered to a minority, which also promotes bilingualism (often via distance education). And we see the contours of clear conflicts of interest between rural Sámi in Sámi-language administrative districts and the urban Sámi.

Although multilingualism has always been part of the Sámi culture, many Sámi of earlier generations lost the language. The status of Sámi has undergone major changes in the last 50 years. Several generations of Sámi were earlier put to shame and stripped of self-esteem by state authorities during periods when the Sámi had to adapt to the language and culture of the majority society (Nergård, 1994). Many Sámi children had to stay at boarding schools. This created a Sámi pain that has not fully healed, even today. From being something shameful, the Sámi identity is now

[4] The Sámi University of Applied Sciences has nationwide responsibility in Norway for Sámi teacher training, journalist training and higher education in general; it also plays an important role in higher education for Indigenous peoples in Finland and Sweden. In those countries, universities in Helsinki, Rovaniemi, Umeå and Uppsala offer Sámi studies, while Russia's Murmansk State Technical University teaches the Sámi language. The University of the Arctic is a network of universities, colleges, research institutes, and other organizations concerned with education in and about the north.

[5] Oral source: Ylva Jannok Nutti.

more and more something in which to take pride. This is a relatively new phenomenon, which gives hopes for the future viability of Sámi people, culture and languages.

Centralization and urbanization are ongoing global processes of great importance to Indigenous peoples (Peters & Andersen, 2013). One question is whether the bilingual tendency among Sámi living in cities will provide support for that viability: will bilingual living with a Sámi identity in Norwegian, Swedish, and Finnish cities lead to sustainable Sámi language use over time? Further, there are settlements in Norway, Sweden and Finland (Sámi-language administrative districts) where Sámi is used in schools as a first language and where Sámi is the main administrative language. Both of these trends offer hope that the Sámi languages and culture have a future. An important prerequisite is Sámi schooling and hence Sámi teacher education, which only exists because there is Sámi schooling. Another issue is the importance of perspectives to Indigenize education (Madden & Glanfield, 2017): How could Sámi cultures, knowledge systems, experiences, and priorities for education unfold within Sámi teacher education?

11.2 The Sámi People's Languages

While parents can choose a Sámi language for their children at school, few choose Lule Sámi or South Sámi, and the number who choose North Sámi is declining. In addition, there is a great shortage of teachers who can teach any of these three Sámi languages. It has proven deeply challenging for some municipalities to engage teachers who have mastered the various Sámi languages, despite their subsidizing Sámi student teachers' education. The Norwegian education authorities are willing to finance Sámi teacher education variants in three Sámi languages, a costly commitment that is vital for maintaining Sámi language teaching and a vibrant Sámi culture for the rising generations: the Norwegian authorities have invested in North Sámi, South Sámi and Lule Sámi teacher education, despite the fact that few students are taking the last two variants. Swedish authorities provide support for courses in Sámi didactics, but offer no Sámi teacher education. North Sámi teacher education has a history of more than three decades in Norway, while teacher education for both South Sámi and Lule Sámi remains in the starting blocks.

South Sámi is on the list of endangered languages in Norway, with only an estimated 500 language users today (about 200 people speak South Sámi in Sweden); similarly, Skolt Sámi and Lule Sámi are seriously endangered. About 500 people belong to the Skolt Sámi language group, most of them live in Finland. About 800 people speak Lule Sámi in Sweden and Norway.[6] Pite Sámi is in the worst situation; it will be considered lost in a short time, with only 20 users left in Sweden. Although North Sámi is spoken by about 30,000 people in Norway, Sweden and Finland, it is

[6] http://www.samer.se/samernaisiffror.

also vulnerable. Lule Sámi and South Sámi are spoken in Norway and Sweden, whereas Pite Sámi and Ume Sámi only exist in Sweden; they are regarded as having disappeared in Norway. Inari Sámi is only spoken in Finland. About 500 people belong to the Inari Sámi language group, all in Finland. Akkala Sámi, Kildin Sámi and Tersámi are only spoken in Russia. Skolt Sámi is only spoken in Finland today; it is about to disappear in Russia and has already disappeared in Norway. The situation for Sámi languages is very serious in Russia. Tersámi is used on the Kola Peninsula and is close to disappearing. Akkala Sámi was also used there, but is considered to have disappeared or about to disappear. Kildin Sámi is the largest Sámi language in Russia today, with around 700 users; this language, too, is threatened.

11.3 Sápmi

Sápmi is the traditional term for the Sámi's historical settlement area; it has no formal borders, but the northern areas of Norway, Sweden and Finland, along with the Kola Peninsula in Russia, are commonly included. The oldest literary source of the history of the Sámi is Tacitus's description of "fenni", a people in the north (in his AD 98 work *De Origine et situ Germanorum*):[7] "In wonderful savageness live the nation of the Fenni, and in beastly poverty, destitute of arms, of horses, and of homes; their food, the common herbs; their apparel, skins; their bed, the earth; their only hope is in their arrows, which for want of iron they point with bones." But the history of the Sámi goes back further than the first century of the common era. Archaeological findings indicates a prolonged history of Sámi in the north (e.g., Kleppe, 1974). The ancient Sámi were a hunting people based on a *siida* system, which means hunting teams that formed units, or a "Sámi village". Biologically primary knowledge (and skills) are things that humans have evolved to learn, such as their first language, as ways to solve life's challenges (Sweller et al., 2011). Through listening and watching, Sámi children and youth learned how to survive under harsh living conditions.

Biologically secondary knowledge is the material that humans encounter through schooling, which was invented to bridge the gap between primary and secondary biological knowledge (Geary, 2002). But the content of schooling must be perceived as relevant and rewarding for the learner in order for the bridge over the gap between primary knowledge and secondary knowledge to function constructively in people's lives (Darnell & Hoëm, 1996). If the cultural distance between the learners' background and the content of schooling becomes too great, significant challenges will arise. The failure of some learners to achieve can be due to the inappropriate nature of the majority's system of education and (sometimes vastly) different cultural environment (Darnell & Hoëm, 1996, p. 212). The attempts to facilitate Sámi education

[7] http://cornelius.tacitus.nu/rom/germania/inledning.htm.

that were not successful in the past failed because the schools did not reflect the surroundings and culture of the Sámi. It is only in recent years that serious attempts have been made to create a better alignment between Sámi culture and school content. However, some scholars believe that this alignment still has room to improve (Keskitalo & Määttä, 2011; Sarivaara & Keskitalo, 2016; Keskitalo, 2019).

In spite of several centuries of educational efforts, the Sámi people did not have a school shaped by their own culture, because school systems were imported in Sámi areas by outsiders; namely, Western educators and missionary workers. The road to the good Sámi school has had more than its fair share of obstacles, which is a common experience in the intersection between Indigenous peoples' cultures and the attempts of Western authorities to influence the mindsets and behaviour of Indigenous people. Further, the history of the Sámi also tells of the colonization of state power, the oppression of the authorities and the resistance of the Sámi (Keskitalo et al., 2013). As a result of colonization, the Sámi lost much of their autonomy, and to some extent their dignity. Opposition to inappropriate schools arose from Sámi who organized themselves into interest groups. This became clear in Sweden and Norway in the early twentieth century. International organizations' work for the rights of Indigenous peoples (Dunbar-Ortiz et al., 2015), which are enshrined in various conventions, declarations and specific provisions of broader human rights instruments, have, however, had an impact on increasing the rights of Sámi in the Nordic social context. Norway, Sweden and Finland have all acceded to these international conventions. Clear momentum in the work with Indigenous peoples' rights in international organizations emerged in the 1980s and has remained strong in the decades since then.

11.4 Early Sámi Education: The Colonization Policies Towards the Sámi

No part of Sámi culture was more important than the language, which was an integral part of Sámi identity. Therefore, it is interesting that early efforts to build a bridge between Sámi and school took place to some extent in Sámi areas. The Swedish mission among the Sámi intensified in the seventeenth century. The mission was an integral part of the Swedish state's colonial interest in mastering the Sámi area and utilizing its resources. In 1619, the Swedish priest Nils Andersson/Nicolaus Andreæ (1557–1628) published Sámi religious songbooks and catechisms (Siegl, 2017). He offered to run a school for Sámi children and teach them to read in Sámi, Swedish and Latin. The Swedish king supported his efforts and granted funds for the education of six Sámi boys, who were also to be provided with food and clothing. This became the first Sámi schooling in Sweden, the ultimate purpose of which was to produce Sámi-speaking priests. However, the importance of this early attempt at Sámi education should not be exaggerated: the Sámi children found little in the school system that spoke to them and their world. The Christianization

of the Sámi nevertheless became a protracted process. The Sámi guarded their traditional performances and rites. In 1685, the Swedish state decided that the Sámi should be Christianized by force, and missionary work intensified. The colonising the Sami region was awakened by discovery of natural resources. In the 1720s, the state and ecclesiastical authorities in Sweden tried to get a stronger grip on the language conditions. Specifically, the question was about what form of language the church would use in the Sami ABC books and catechisms.

To avoid the requirement to participate in the church's teachings and services, many Sámi simply would not come to the church in their own villages or moved to other places that were further away from the church's influence. At the 1723 Riksdag, it was discussed how the Sámi Christianization could be made more efficient. The background was that there had been recent reports of continued use of traditional Sámi rites. The solution was to set up a school system, the so-called Lapp school (Johanson & Flodin, 1990), but the cultural distance between the Sámi culture and school content became too great for these efforts to be regarded as successful. However, this instruction was done with use of Sámi languages.

Another example of using the Sámi's own language in missionary work and schooling can be found in the former state of Denmark-Norway. From the middle of the seventeenth century, the Danish-Norwegian church dispatched catechists to teach in some Sámi areas. The Danish king Fredrik IV established his own missionary work among the pagans of Denmark-Norway. The Mission College in Copenhagen directed the Norwegian pietist Thomas von Westen (1682–1727) to begin mission work among the Sámi. He started a missionary school in Trondheim, sent missionaries and teachers to the Sámi areas of northern Norway and had churches and schoolhouses built. The system that developed under von Westen's leadership covered most Sámi in Norway at that time; he wanted the Sámi to be taught in their own language and initiated translations of Christian scriptures for use in church and school. In many ways, von Westen was a pioneer in the Danish-Norwegian area because he realized the importance of using the Sámi language. The efforts were intense and so successful that the same church system could be introduced for the Sámi as for the rest of the regency's population. Von Westen was a key figure behind the Seminarium Scolasticum (later called the Seminarium Lapponicum), which was founded in Trondheim in 1717 (Grankvist, 2003; Hoëm, 2007). One of its aims was to educate priests and teachers who could preach and teach in Sámi. In 1719 he established the Seminarium Domesticum, which trained Sámi boys to be teachers. This seminary was run from his own home, which was open to Sámi. Between 1716 and 1723, he made three mission trips to northern Norway, where he preached in Sámi and gave sermons characteristic of the austere faith of his day.

In Finland, there has been teaching for Sámi since the seventeenth century (Laiti, 2019). Initially, this meant catechetical education delivered by itinerant teachers (Kylli, 2019). Once again, the cultural distance between Sámi culture and school content was too great to be fully effective, but catechetical education in Sámi areas did not disappear until the beginning of the twentieth century.

11.5 The Assimilation Policies Towards the Sámi

In the 1700s, many priests and missionaries made efforts to translate religious literature into Sámi and to develop primers to help Sámis learn the skill to read. A teacher training college was established in Trondenes in Norway in 1826, with teaching in Sámi, and a number of books in Sámi were published (Dahl, 1976). The establishment of the seminary had a clearly Sámi purpose, as it was primarily intended for Sámi people. These efforts were largely unsuccessful, partly because the content was not successfully adapted to everyday Sámi life.

After 1800, however, new ideas began to spread. One involved the notion of cultures having higher or lower standing, and the other concerned superior and inferior races. During the last decades of the nineteenth century, biological racism entered Swedish and Norwegian Sámi politics. It began to be claimed that the Sámi were born with certain racial characteristics that made them inherently inferior to the rest of the population (Keskitalo et al., 2018), a view that ushered in the darkest chapters in the treatment of the Sámi by the Norwegian and Swedish authorities.

Towards the end of the eighteenth century, missionary efforts were largely discontinued, and the Sámi were to be served by ordinary priests and teachers speaking Danish or Norwegian. In the nineteenth century, there was a reassessment of policies regarding the Sámi, whose level of knowledge of Norwegian and Christianity had declined. The Norwegian authorities' uncompromising Norwegianization policy towards the Sámi and Kvens (a people of Finnish descent in northern Norway) from the middle of the nineteenth century led to Sámi-speaking teachers being unwanted in Sámi districts. In 1848, the Storting, Norway's parliament, made the first decision in the direction of Norwegianization. In 1851, the *Finnefondet*[8] was established to give the Sámi people Norwegian language skills (Keskitalo et al., 2011). This was the start of displacing Sámi as languages of teaching in favour of Norwegian; Sámi was relegated to an auxiliary status. The only books published in Sámi were a grammar, dictionaries and a bilingual abecedary, along with religious writings; nothing that treated the Sámi's own culture or literature was printed. From the middle of the 1800s, the policy of Norwegianization meant that the Sámi languages disappeared from large areas.

The last half of the nineteenth century was marked by nationalism and the cultivation of traditional Norwegian culture. Many of the leaders in the struggle for national independence were at the same time responsible for a strict policy of Norwegianization for the Sámi people. The idea of one nation and one people was promoted, and nation building in Norway emphasized unity. In that context (Hodne, 1994), schools played an important role as identity-creating and unifying institutions. A Norwegian national culture was promoted through school curricula, and the

[8] A Finnefond was in use between 1851 and 1921. The Finnefond's funds went to building schools, to extra salaries for teachers, financial support for school children and their families as well as teaching materials. Finnefondet helped finance the state's Norwegianisation policy towards Sami and Kvens.

Norwegian language was used almost exclusively in public schools. This nation-building agenda legitimized the harsh assimilation policy pursued against the Sámi, which included pressure to use the Norwegian language. Norwegian Sámi schooling was also affected by racism and a long-lasting policy of Norwegianization for the Sámi people. The government constantly emphasized that the Sámi had to learn Norwegian, although no one said precisely how that was to occur. Few practical language skills came from studying religious writings. From the dawn of the twentieth century, boarding schools were promoted (Keskitalo & Olsen, 2019). The first such schools were established in 1905, and boarding school development continued until the end of the 1960s. Many students who experienced boarding school found it a negative experience. Learners with Sámi as their native language were forced to complete their schooling in Norwegian without any support for the preservation of their Sámi skills in the learning process. This policy had particularly unfortunate consequences: many learners with a Sámi background attended school for years but developed only a poor grasp of Norwegian, which resulted in Sámi learners graduating at a significantly lower rate than Norwegian-speaking students (Hoëm, 1965). Sámi opposition to the policy of assimilation emerged in the early twentieth century, leading to the creation of a Sámi organization dedicated to asserting Sámi rights.

In Sweden, meanwhile, where having children learn Swedish was an explicit goal, the Riksdag decided on a change in Sámi education in 1913. A special reform introduced nomadic schools for Sámi children. Teaching was to be arranged in the form of a catechetical school during the first 3 years that the nomadic children went to school; some teachers were also itinerant. This new initiative was mandatory for the children of the nomadic Sámi. The school statutes from 1925 and 1938 state that the teaching language should be Swedish, and teaching in Sámi did not occur at all during the first half of the twentieth century. In northern Sweden, special houses (huts) were built where the children were cared for by Sámi principals. In the 1940s, these huts were replaced by boarding schools. In the mid-1940s, nomadic schooling meant a 6-year primary school, with a seventh year introduced in the 1950s. In practice, the teaching language was Swedish, but Sámi could be used for explanatory purposes if a teacher knew how to speak it.

The Finnish Folkeskole was established in 1866. There were large local variations in schooling that were offered to the Sámi. In Finland, too, an important goal of school activities was integration: the aim was to unite the entire nation of Finland under a patriotic ideology. The school system was effective for nation building and for the assimilation of Sámi people, thanks to its nationwide reach and the uniform national values, identities, ideologies, and norms that schools imparted (Nyyssönen, 2019). The Finnish school had a strong connection to nationalism, which was intensified during the late 1800s and early 1990s, when the country was an (ostensibly) autonomous Grand Duchy within the Russian Empire. The Sámi gained access to teaching in the ordinary schools, but there was no explicit policy of assimilation, as in Norway. The legislation on primary and lower secondary schools did not oblige municipalities to offer instruction in the children's native language, although there was schools in which Sámi was taught. However, there was no plan to establish segregated schools for the Sámi out of paternalistic motives, as there was in Sweden.

In Finland, everyone was to receive the same education. The school was thus an expression of the dominant state ideology: national unity through equal treatment and the avoidance of the hierarchical policies and views that characterized Scandinavian school policies. Thus, the Sámi's entry into Finnish schools followed a different trajectory from what happened in Norway and Sweden (Nyyssönen, 2013, 2019). However, Finnish schools still lacked sensitivity regarding Sámi culture and language and had difficulty offering education in poor areas.

Problems arose for Sámi industries and the Sámi culture from the intrusion of modern society, with large-scale forestry, hydropower development, mines, roads, railways and eventually large-scale tourism. While some Sámi also benefited from these innovations, the physical and economic space for the Sámi way of life and culture became smaller and smaller.

In the face of these pressures, Sámi people began to change their primary languages from Sámi to the majority language in the twentieth century, thus denying their Sámi background. People lost their language and identity as a cultural minority; they had previously been the subject of centuries of missionary activities that had nearly obliterated the Sámi religion. Some also kept their Sámi identity hidden from their descendants because being Sámi had been seen as negative for so many years. However, some Sámi also began to organize themselves in defence of their language and culture.

11.6 A New Turn: The Recognition That Sámi Learners Must Learn Sámi at School

In the years after World War II, a more balanced view of Sámi schooling emerged in Sweden, but it took some time to take hold (Henrysson & Flodin, 1992). In 1962, the nomadic school became voluntary and open to all Sámi children; Sámi later became a compulsory subject. During that same early post-war period, there was also a gradual change in Norwegian policy towards the Sámi. The Norwegian authorities tried to resolve Sámi school issues on a more open-minded basis, without Norwegianization as an objective. Sámi could primarily be used as a pedagogical aid to promote Norwegian language teaching. A new turn in Sámi policy came with the Sámi Committee of 1956, which advocated protecting the Sámi languages and culture, teaching in and on Sámi, Sámi textbooks, Sámi upper secondary education and scholarship schemes for Sámi youth. However, Sámi parents were opposed to the emphasis on schooling (for instance, in reindeer husbandry, schooling was directly disqualifying in relation to a future in the primary industries). A major challenge was that schools did not provide instruction in Sámi culture and language; on the contrary, they led students away from their roots. In 1959, it was in principle possible to use Sámi as languages of instruction, and with the extension to 9 years schooling in 1969, parents could demand Sámi education. In the 1970s, training in Sámi as a second language was implemented. Although instruction in Sámi was

permitted, Norwegian was still the main language in teaching Sámi speakers through the mid-1980s. It was at this time that both the Sámi languages and Sámi content gained a stronger place in schools. The curriculum reform of 1987 separated Sámi curricula from national curricula for the first time. Beginning in 1988, primary schools had their own Sámi curricula in seven subjects, at least on paper; however, little effort had been made to fill these curricular frames with content (Olsen, 2019), and the Norwegian authorities only developed curricula for Sámi schools after 1997. Parallel curricula for Norwegians and Sámi were maintained in the curriculum reforms of 2006 and 2020. There are now equal and parallel curricula in Norway's Sámi districts. Learners who have the right to education in Sámi but who live elsewhere, follow the curriculum in Sámi as a first or second language. They receive training in other subjects according to the national curricula.

In Finland, the most patriotic elements of the curriculum were removed in the period after World War II. Boarding schools were expanded, the Sámi languages were downplayed, and Sámi culture was largely ignored and categorized as lower than Finnish culture. However, there was still no explicit plan for assimilating the Sámi. The scope of boarding schools became smaller in the 1960s as roads and school transport improved. The boarding schools did not disappear completely; they remained in the largest towns. The intention to establish teaching in Sámi did not result in any concrete developments until the late 1950s.

In Sweden, the Riksdag decided on a reorganization of Sámi education in 1962. The former nomadic schools became voluntary and open to all Sámi children, and the Sámi language became a compulsory subject. From 1962 onwards, it is fair to say that Sámi schools were like any other Swedish schools at the primary level. The Sámi school has an important task in communicating to Sámi society and Sámi norms, values, traditions and cultural heritage, along with teaching them to read, speak and write Sámi. Today, the Sámi school is responsible for ensuring that each student is functionally bilingual. Sámi children can also choose to go to a traditional primary school and receive teaching with Sámi elements through the integration of teaching Sámi in those schools.

11.7 The Emergence of Sámi Parliaments

The Sámi mobilized in the final decades before the turn of the millennium, leading to the formation of Sámi parliaments. The Sámi Parliament of Finland was created in 1973; a separate Act on the Sámi Languages was adopted in 1991 and came into effect in 1992. It made Sámi an official language with the status of a regional minority language. The languages and cultures of the Sámi and their status as an Indigenous people became early important responsibilities of the Sámi Parliament in Finland. The Sámi Parliament of Norway opened in 1989, while the Swedish Sámi Parliament was established in 1993. A Kola Sámi Assembly was established in 2010, but it is not recognized by the Russian or local governments. The Russian legal framework supports teaching in Sámi, but is not supported by the Russian education authorities

(Zmyvalova & Outakoski, 2019). The evolution of Finnish policies was delayed when compared to the gradual change in Norwegian policy towards the Sámi. The Finnish assimilation policy towards the Sámi was at its peak just as the assimilation policy in Norway was in decline. This may have been a key cause for the early establishment of a Sámi Parliament in Finland.

11.8 The Evolution of Sámi Teacher Education

Between 1904 and 1953, there was almost no systematic education of Sámi teachers. One of the early advocates for Sámi interests, Per Fokstad, proposed Sámi as the languages of instruction in primary education in 1924, with Norwegian taught as a foreign language (1923, 1926). Fokstad also fiercely supported Sámi teacher education and the creation of a Sámi academy (Kortekangas, 2019). These ideas became realities many decades later, through the establishment in 1973 of the Nordic Sámi Institute, a research and general cultural institution that has a formal role in the Nordic Council of Ministers. Over time, its main mission changed to Sámi research. In 1953, Sámi topics were used as curriculum at Tromsø Teacher Training College. In autumn 1973, teacher education was established in Alta, as the result of the work of a committee whose mandate was to assess the need for teachers and thus teacher education specifically aimed at Sámi conditions and Sámi districts. Recruitment to Sámi upper secondary schools had declined, which had follow-on consequences for the recruitment of Sámi teachers.

Teacher education programmes in Norway have seen many changes since 1973. After a period in which Sámi teacher education was housed in the Sámi Department at Alta Teacher Training College (Alta lærerhøgskole), the Sámi University of Applied Sciences (Sámi Allaskuvla) was established in Kautokeino (Guovdageaidnu), in 1989. The Sámi University of Applied Sciences offered general Sámi teacher education for primary and lower secondary school in Sámi and in a Sámi environment. This general education was elevated in 2013 to a 4-year primary and lower secondary teacher education and to a 5-year Sámi teacher education master's programme in 2017. Students come from all over Sápmi; including those from Norway, others come from Finland, Sweden and Russia. The university offers integrated professional teacher education, There are two variants: Sámi Primary and Lower Secondary Teacher Education programmes for grades 1–7 and 5–10, respectively. 14 students fulfilled these two programs 2014–2020.

In 2018, a South Sámi primary school teacher education master's programme for levels 1–7 was inaugurated at Nord University in Levanger (4 students), and a Lule Sámi primary school teacher education master's programmes for levels 1–7 opened at Nord University's Bodø location (5 students). Nord University has nationwide responsibility for Lule Sámi and South Sámi higher education. These programs qualify graduates to teach Sámi-speaking children, and the education authorities implemented these initiatives for teacher education in South Sámi and Lule Sámi

due to a lack of teachers with this language competence. No student has fulfilles these programs so far.

11.9 An Outlier: Russian Sámi Education

While the policy patterns regarding the Sámi in Norway, Sweden and Finland have certain similarities, developments regarding the Sámi in Russia have been radically different. The Soviet regime was established on the Kola Peninsula only in 1920, 3 years after the communist November Revolution that toppled the tsarist regime. Kotljarchuk (2019) argues that the politics of self-determination became a tool for communists pursuing a nationalist agenda for the "oppressed" Sámi people: in the early days of the Soviet Union, minority schools got teaching materials in Sámi. This arrangement differed from the Nordic countries at this time. However, the situation became worse later. Sámi instruction disappeared from schools, and the Russian Sámi had no longer native-language school system or textbooks: in 1938, all Sámi schools were closed and Sámi-language textbooks confiscated. The promotion of Sámi education in what is now Russia was completely suspended until the 1990s. The Russian Sámi education has still a difficult and challenging situation.

11.10 Discussion

The review of the developments that led to Sámi teacher education programmes reveals not only a winding but even a tortuous path. On the one hand, Sámi education and teacher education are viable in both traditional Sámi areas and certain urban areas with significant Sámi populations. There has been a flourishing related to Sámi identity and an increased awareness of the need to preserve Sámi languages and culture. This tendency is part of a larger pattern: since the 1960s, there has been a wave of revitalization among the world's Indigenous peoples, and the Sámi renaissance is no exception. Likewise, a certain optimism is associated with recent innovations in Sámi professions: value creation and employment in the primary industries of agriculture, reindeer husbandry and fishing, along with the newer opportunities in tourism and culture. We can find examples of new generations of Sámi who know how to protect and further develop Sámi industries like tourism. On the other hand, there is also a certain pessimism about the future of the Sámi. What lies ahead for the Sámi languages in urbanized Nordic regions? The Sámi's primary industries, such as reindeer husbandry, are in decline. Many are moving from villages to larger centres, where Sámi is not the vernacular. There, the Sámi encounter the majority language everywhere. Thus, there will be fewer opportunities to use their first language.

The situation for promoting Sámi interests, including Sámi schools, in Russia is very difficult (Zmyvalova & Outakoski, 2019). However, the situation is somewhat

better for Sámi interests in Norway, Sweden and Finland. Sámi languages are stronger in those societies because their status is more vigorously protected through laws and other measures. The opportunity to learn Sámi languages in school (at least as distance education) has never been better. Several public enterprises are actively working with Sámi languages, and Sámi languages are more visible than ever. Nevertheless, their future remains uncertain. The general trend is that the use of the Sámi languages as everyday means of communication is in decline (Sønstebø, 2021). This is especially true in areas where Sámi languages have been exposed to pressure from the majority society and in small Sámi language communities. The shortage of teachers with adequate competencies in Norway (Sønstebø, 2021), Sweden (Samisk språkcentrum, 2021) and Finland (Huhtanen & Puukko, 2016; Arola, 2020) is a threat.

Nordic co-operation to ensure integration in the Nordic region is a vital issue for Sámi teacher education and Sámi education.[9] Norway, Sweden and Finland should co-operate on Sámi issues through both a multilateral official body and at the political level. The three countries' Sámi parliaments also have a co-operative body. Perhaps this intensified Nordic co-operation will find viable solutions to the challenges outlined above? Today, formal organizational arrangements for Nordic co-operation on Sámi teacher education issues are weak.[10] It is difficult to find a better justification for Nordic co-operation than the ambition to ensure a future for Sámi education and hence Sámi teacher education.

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[9] The notion of Nordic Sámi teacher education is not new: the 1987 Sámi Culture Committee found that the ideal goal would be a Nordic university college (NOU 1987: 34 Sámi culture and education).

[10] In 2017, Norway, Sweden and Finland concluded negotiations on a Nordic Sámi convention, but further actions have been limited. The lack of progress in Nordic cooperation can be linked to tensions (related to extractive industries, renewable wind power, an Arctic railway, fishing rights, etc.) in Sámi territories between state authorities and the Sámi parliaments in Norway, Sweden and Finland (see, e.g., Tønnesen, 1977; Larsen, 2021). It should be noted that there are differences of opinion among the Sámi on the question of rights (Horn, 2021), but it is beyond the scope of this article to discuss conflicts of justice related to the ownership of resources.

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Part III
Crossnational and Comparative Studies of Teacher Education

Chapter 12
Nordic Student Teachers' Evaluation of Educational Theory, Subject Didactics, Practice Training, Time on Task and Turnover Intentions

Eyvind Elstad, Knut-Andreas Abben Christophersen, and Are Turmo

Abstract This chapter compares the quality of aspects of teacher education in the Nordic countries. Scandinavian countries employ nationwide surveys in higher education that provide essential information for education authorities of each country; these measurements are used in public sector debates concerning teacher education, and in individual teacher education environments. The results from these measurements can be used for benchmarking.

This chapter compares the quality of various aspects of teacher across Nordic countries via a survey of student teachers. We collected data from all Nordic countries using similar surveys that were translated into the various Nordic languages by native speakers. All student teachers who participated in the study were in the final phase of their teacher education programme. Student teachers' evaluations of educational theory, subject didactics, practice training, time-on-task, as well as several motivation categories were examined. The analyses show several similarities. However, the biggest difference between average scale values is found between the Danish and Finnish data sets. There is a standard deviation in difference in favour of Denmark between the relevance of educational theory teaching experienced in Denmark and Finland. Further, the time on task in Danish teacher education is far higher than in the other Nordic countries.

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12.1 Introduction

"You have to compare", says 12-year-old Ingemar in the film *My Life as a Dog*. This chapter's main argument is the possibility of applying results from measurements of quality attributes in the various Nordic countries for the purpose of improvement. This is because differences in the Nordic countries' teacher education provide empirical indications claiming that some countries' policy-making functions better than that of other countries. This chapter deals with quality aspect comparisons related to teacher education in the Nordic countries. Different institutions carry out measurements that make it possible to compare quality aspects, partly on behalf of central education (for example, the Eurostudent survey) and partly as one permanent task vis-à-vis a public agency. Examples of the assessments include surveys from institutions such as the Norwegian Agency for Quality Assurance in Education (NOKUT). This agency runs the Study Barometer for Norway, the Swedish Higher Education Authority (Universitetskanslerämbetet), which conducts the Student Mirror, and the Ministry of Higher Education and Science, which conducts the Learning Questionnaire (Læringsbarometeret) in Denmark (2018). Finland and Iceland, as well as the autonomous territories of the Faroe Islands and Greenland, do not have these types of nationwide surveys for higher education. Notably, these surveys provide essential management information for each country's education authority, and the measurements are used in public sector debates concerning teacher education and within the individual teacher education environment. This information can be used by the national authorities of the individual countries and networked improvement communities working to combine and spread ideas that provide innovation and learning and make teacher education more effective and efficient. To do this is Nordic collaboration model that includes coordination across nations, needed.

Teacher education has a learning-to-improve problem. In this chapter, the issue of whether it is possible to improve the quality of one teacher education institution is introduced, based on comparative improvement work. The basis of the problem is called improvement science (Bryk et al., 2015). The overall goal of improvement science is to ensure that quality work is based as much on evidence as it is on the best practices the quality work seeks to implement.

This chapter compares quality aspects in teacher education across Nordic countries. However, this endeavour is merely a starting point; a more robust methodology must be developed for continuous, systematic evidence-based improvement. Sustained efforts are necessary to advance improvements at large. However, this type of comparison for benchmarking processes has become commonplace in connection with large-scale surveys within school education, with the Nordic countries often compared in particular (Ludvigsen, 2016; Wester, 2018). The premise for such comparisons is that the Nordic countries have so many contextual similarities that it makes particular sense to compare them. The variation in contexts is, however, a challenge. Research designed to juxtapose relatively similar contexts is called "the most similar systems design" (Anckar, 2008). When the contexts have reasonably strong similarities, there is an analytical benefit to comparing them.

With the exceptions of TEDS-M and the Eurostudent project, systematic comparative measurements of the quality dimensions of different countries' teacher education do not exist. Instead of comparative measurements of study quality between countries, the Scandinavian countries have chosen in-country comparisons of quality aspects of different types of studies in higher education. In Norway, this measuring instrument was named the Study Barometer. In Sweden, it is called the Student Mirror, and the Danish termed it the Learning Questionnaire. The questions used in these surveys have some similarities, but they are still so different that comparing them does not make sense. We argue that it would be sensible to compare the quality attributes of the Nordic countries' teacher education programmes. However, for this argument to be valid, one must use the same measuring instrument. For this to be possible, cooperation is needed between the institutions of the Nordic countries that carry out such measurements as the aforementioned Study Barometer, Student Mirror and Learning Questionnaire. Such collaboration does not exist today. In the absence of such a standard Nordic measuring instrument, we present some tentative measurements utilising the same instrument in each Nordic country.

These in-country surveys can be valuable; however, for a country's authorities, it should be of particular interest to compare relevant quality dimensions across countries and especially with countries with which it is natural to compare. Here, comparison across Nordic countries presents an interesting alternative. Failures emerge from the systems' functioning; for instance, extreme fragmentation in Swedish campus teaching in teacher education programmes (Linderoth, 2016). Such fragmentation seems less apparent in, for example, Danish teacher education programmes. It is possible to reduce these harmful systemic variations by using consistent and sustained inquiry to drive improvement processes at a system level (e.g. forms of partnership arrangements between teacher education institutions and practicing schools or school mentor education). Nevertheless, the most meaningful level of improvement work is in the individual institutions that offer teacher education: the fabric of daily work is an arena of iterative refinements. The national comparison can, of course, provide an empirical basis for improvement, but we believe that ideas for improvement should also be spread across countries. In this chapter, results from a Nordic comparative study on selected teachers present the quality attributes in teacher education.

12.2 A Cross-Sectional Survey of Student Teachers in All Nordic Countries

The purpose of this chapter is to present the results of measurements of Nordic student teachers' evaluations of the relevance of teacher education in courses like educational theory (*pedagogikk*) and subject didactics, along with selected dimensions of quality in practical training (practicum experiences). We also study Nordic student teachers' time on task. Finally, we analyse Nordic student teachers' turnover intentions.

The overall competence that a student teacher must attain involves several areas that are often separated in teacher education: education in subjects, educational theory, subject didactics and guided practice in schools. The weights assigned to these four components may vary along with the terms used to describe them, but all teacher education programmes include them (Hopmann, 2006). We aim to determine whether it is worth comparing different quality aspects of teacher education in the Nordic countries in the context of 'benchmarking'. We collected data from all Nordic countries using similar surveys that were translated into the various Nordic languages by native speakers. All student teachers who participated in the study had completed 'long-term practice' and were in the final phase of the teacher education programme. Therefore, we assume that they had the experience needed to perceive quality-related aspects of both campus teaching and field experience in practical schools.

A key question is whether the samples accurately represent each country. Details about sampling are found in Elstad et al. (2021a, b), Björnsdóttir et al. (2022), and Juuti et al. (2018). The questionnaires obtained from Norway, Iceland and Denmark were completed by student teachers from several teacher education institutions with relatively broad support and a high response rate. Thus, we believe that these samples reflect the essential characteristics of how student teachers in these countries perceive the quality aspects of teacher education; indeed, the Icelandic sample is almost a complete population survey. An obvious limitation of the samples from Sweden and Finland is that questionnaire data were collected from only one teacher education institution in each country. On the other hand, bias is reduced because very few people who were asked to participate declined to fill out the questionnaire.

Parts of the surveys administered in Iceland and Norway were distributed electronically, while the other countries' students were given paper-based questionnaires. In the former case, students were asked to participate by email, with potential participants' email addresses were provided by their teacher education institution. In the latter case, compulsory teaching sessions were conducted in which the paper-based questionnaires were distributed. A representative of the research project was present when the paper-based questionnaire surveys were completed. In our experience, no student teacher conspicuously refused to participate in the survey. While we cannot know for certain whether some student teachers chose not to submit the questionnaire, we believe that this was very unlikely. However, the question of whether the sample of each Nordic country is representative of its population must be investigated in future studies.

The purpose of this chapter is to perform exploratory rather than confirmatory research. We compare the central tendencies and spread of key concepts and study the empirical relationships between certain important variables. Quality dimensions are measured by several indicators (a multi-item approach) to identify common underlying concepts (Kline, 2004). We have begun the process of developing relevant instruments for use as benchmark indicators in teacher education programmes in the Nordic countries. However, we recognize the need to calibrate these instruments more finely for future benchmarking processes to provide a firmer empirical basis for comparison and benchmarking (Haladyna & Rodriguez, 2013).

Previous studies have compared teacher education between some or all of the Nordic countries (e.g., Afdal & Nerland, 2014; Canrinus et al., 2017, 2019; Elstad et al., 2021a; Hammerness & Klette, 2015; Hammerness et al., 2016; Klette et al., 2017). However, to the best of our knowledge, quantitative analysis of the quality aspects that comprise our focus have not been performed for all Nordic countries.

12.3 Nordic Student Teachers' Evaluations of Educational Theory, Subject Didactics and Practice Training

Table 12.1 shows Nordic student teachers' evaluations of educational theory, subject didactics and practice training. A seven-point Likert-type scale was used in the questionnaire (1 = strongly disagree, 4 = neither agree nor disagree, 7 = strongly agree). The individual questions associated with each of the aggregate variables in the table are presented in Appendix.

The central conclusion we draw from the results is that there are astonishingly similar empirical patterns among the Nordic countries in terms of both central tendency and spread; with only a few exceptions, the differences are relatively small. The results of this study do not provide empirical evidence that teacher education in a given country is qualitatively better in terms of any dimension than in any other country, in contrast to prior analyses of intentions related to teacher education in different countries (see, e.g., British Educational Research Association, 2014; Darling-Hammond, 2017). This leads us to believe that teacher education environments in the Nordic countries face fairly comparable challenges and dilemmas created by relatively comparable situations. Because the similarities are so great, we believe that a detailed comparison of all Nordic countries is justified.

All Nordic countries reveal a perceived greater relevance of subject didactics than educational theory. We interpret this primarily as a consequence of the situational logic of teaching (Popper, 1976). In educational theory teaching, examples that are relevant to teaching practice are taken from several subjects, but this is not the case with subject didactics teaching. However, it is inappropriate to state that educational theory teaching is consistently poorer with regard to relevant experience than subject didactics teaching; educational theory simply has different specific conditions and serves a broader set of purposes.

Educational theory in teacher education also has similarities across the Nordic countries. Therefore, it may be relevant to examine, for example, what makes educational theory more relevant in Danish teacher education than in other Nordic countries. We believe that measurements are a better starting point for comparison than intentional documents and interviews (see, e.g., Andersen et al., 2017), as they can serve as a base to try to go beyond numbers (e.g., by analysing interview data) to find plausible explanations for measured differences.

It is of interest to look at the highest average values among the Nordic countries. If we assume that those countries are largely comparable, the highest average value

Table 12.1 Nordic student teachers' evaluations of educational theory, subject didactics and practice training

	Norway			Finland			Denmark			Iceland			Sweden		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
The practical relevance of educational theory teaching	628	4.01	1.37	156	3.63	1.11	1491	4.73	1.12	281	4.26	1.43	132	4.32	1.35
The practical relevance of subject didactics teaching	605	4.53	1.44	155	4.77	1.11	1495	4.86	1.14	284	4.54	1.45	133	4.50	1.28
The relationship between theory and practice in teacher education practice periods	624	4.26	1.38	154	4.11	1.09	1471	4.49	1.22	282	4.90	1.35	132	4.74	1.34
Practice supervisor	626	3.30	1.48	151	3.92	1.18	1465	3.64	1.39	275	3.64	1.57	130	3.85	1.61
Personalized support in practice supervision	623	5.21	1.33	154	5.48	0.96	1456	4.69	1.23	270	5.40	1.39	133	5.16	1.37
Class disorder	615	3.35	1.18	152	3.54	1.05	1458	3.74	1.10	263	3.24	1.24	126	3.88	1.37
Study requirements	629	4.80	1.42	155	4.33	1.36	1500	4.48	1.28	300	4.85	1.46	123	3.96	1.29

of a quality dimension shows what could be achieved in the other countries and is thus an indicator of good practice. Regarding the perceived relevance of educational theory and subject didactics in teacher education, both average values are highest in the Danish sample. These results align with evaluations performed by an expert group:

> The quality and relevance of teacher education in a number of areas [is] satisfactory.[…] It […] succeeded in making teacher education more relevant to some of the key needs of customers, including in relation to the work of classroom management.[…] Teachers' basic professional skills (educational theory and teacher professionalism as well as general education/Christian Knowledge, Life Enlightenment and Citizenship) constitute a new subject area in teacher education from 2013, although pedagogical subjects and subject areas have long been an integral part of education. It is a pervasive point in the evaluation that the professional colleges work actively to ensure a connection between the teacher's basic subject and the teaching subjects. Both teachers and students feel that the context is being sought. (Danish Agency for Research and Education, 2018, pp. 10–12)

One unanswered research question we pose is whether Danish teacher educators teach educational theory and subject didactics in ways that are particularly interesting and inspirational.

Our starting point is the belief that everything can be improved, including teacher education programmes in the Nordic countries. For example, the Swedish School Commission (SOU) finds that there are reasons for 'strengthening the integration between theory and practice in teacher education' (SOU, 2017, p. 35). For Norwegian teacher education, the relevance of educational theory to students' field experiences is emphasized in current policy: 'There is [...] a great potential for creating a better connection between theory teaching and practice training in teacher education' (Norwegian Ministry of Education and Research, 2014, p. 42) and 'there are indications that [...] the practice relevance should be strengthened. In general, the distance between campus and practice is still large' (Norwegian Ministry of Education and Research, 2017, p. 11). Our results show that the relevance experienced in educational theory teaching is clearly lower in Norway than Denmark: the average scale value is around 4.75. In addition, the results reveal major differences in teacher education between institutions in Norway. The critical question is also quite straightforward: Is it possible to learn from good practice through benchmarking processes? For example, what makes Danish student teachers find greater relevance in educational theory than Norwegian student teachers? This question might be investigated by focusing on the interaction between several factors, including teaching materials and how the teaching of educational theory is organized.

The biggest difference between average scale values is found between the Danish and Finnish data sets. There is a standard deviation in difference in favour of Denmark – and thus a significant difference – between the relevance of educational theory teaching experienced in Denmark and Finland. Since the relevance of experience in subject didactics education in Finland is roughly as high as in the other Nordic countries, this value for educational theory cannot be an expression of a general response modesty in the Finnish sample. On the other hand, only very good students are admitted to Finnish teacher education programmes, and these students

can be thought of as discerning. Thus, contextual differences must be considered. One could ask whether it is fair to compare the relevance of educational theory between countries; this question should be addressed in future research.

The Finnish results can be interpreted based on the following information from the teacher education institution. In years 1–6 of the teacher education programme, student teachers have short courses on subject didactics for each subject. Professional student teachers will typically attend courses in two school subjects (e.g., Finnish and the natural sciences) and hence two subject didactics courses. In the teacher education programme, there are several courses focused on the subject of teacher education, which is called educational theory. These courses are the same for all student teachers in Finland and cover topics like general didactics and educational theory, developmental psychology and diversity in education (multicultural education, special education and general content regarding human skills). At the time of data collection, these students had taken educational theory courses focusing on educational philosophy, educational history and sociology, curriculum theory and argumentation in educational contexts. This information is important for understanding the Finnish results for educational theory. The sample includes students from both general and subject-specific teacher education.

If we assume that there are real measurable differences between student teachers' perceptions of the quality of Finnish teacher education and teacher education in the other Nordic countries, we must say that teacher education in the Scandinavian countries faces significant challenges in terms of how society perceives education. Our measurements and other relevant research may enable appropriate communications about teacher education in the Nordic countries, and a knowledge base can be developed to contribute to an open and informed conversation about the strengths and challenges of teacher education.

Measurements of the relationship between theory and practice are fairly similar for all the Nordic countries. The indicator 'In the practice periods, I discuss practical experiences with the supervisors/practice teachers in light of what we have learned', for example, has an average value for all Nordic countries slightly above the neutral midpoint (four) but is highest in Sweden and Iceland. Although it is not easy to compare this study and Canrinus et al. (2017), both identify similar differences between Norwegian and Finnish teacher education.

One quality aspect that scored below four in all Nordic countries is the extent to which the practice supervisor is well acquainted with what student teachers learn about educational theory and subject didactics and thus the extent to which the supervisor clarifies the relationship between educational theory and the student teacher's experiences in the classroom. In this study, this aspect is referred to as 'practice supervisor'. The degree to which the practice supervisor has the opportunity to become acquainted with, for example, the campus curriculum is important. If practice supervisors have limited opportunities to familiarize themselves with the current curriculum literature and the theoretical principles emphasized in campus teaching, it is unreasonable to expect them to relate their guidance to the curriculum literature. In an ideal world, however, practice teachers would know the curriculum literature, which would enhance the perceived coherence between campus teaching

and practice for student teachers, a goal in all Nordic countries, as the Swedish School Commission acknowledges: 'It is important to enable the teachers and other teachers of the schools to collaborate with universities and colleges in their employment' (SOU, 2017, p. 35).

In all Nordic countries, student teachers are more satisfied when they receive personalized support (for example, 'The tutorial talks at the practical schools help me understand what I need to do to improve myself as a teacher') from a practice supervisor than when the practice supervisor is able to link the content of guidance to the literature in the syllabus. This aligns with an expert evaluation of Danish primary school teacher education: 'The students are overall satisfied with the internship' (The Board of Research and Education, 2018, p. 12). Even though practice supervisors may have few opportunities to become acquainted with the theoretical principles of campus teaching and the curriculum literature, they are still perceived as supportive of student teachers' practice.

The academic study requirements received scores somewhat higher than the neutral midpoint (4) in all Nordic countries except Sweden, where study requirements are generally lower than what is desirable (University Chancellor's Office, 2015). The indicators we used are not ideal, but our results are consistent with those in other studies (e.g., Lärarnas Riksförbund, 2016; The Swedish Confederation of Professional Employees (TCO), 2013; Universitetskanslersämbetet, 2017) and indicate the need to increase the academic requirements at the Swedish teacher education institutions that provided our data material. The Danish Reform Agreement (2012) expressed an ambition to strengthen the intensity with which student teachers study. Additionally, the expert evaluation of Danish primary school teacher education points out that

> with regard to the academic requirements of the students, the expert group considers the achievement of the target to be average. On the one hand, the introduction of competency goals places high demands on students, but the extent of goals has led to disadvantages related to evaluation and in-depth learning for the students. (Danish Agency for Research and Education, 2018, p. 32)

Our analysis of the Danish data set generally corresponds to this evaluation, but the academic requirements are lower than what we measured in the Norwegian and Icelandic data sets.

The reported noise and disorder while teachers observe or teach was highest in the Swedish data set. The differences in student teachers' perceptions of noise and disorder in Norwegian and Swedish classrooms roughly correspond to the data obtained from the most recently published PISA survey (Kjærnsli & Jensen, 2016). In the other Nordic countries, teachers' perceptions of noise and disorder differ somewhat from students' perceptions of the same. This can, of course, depend upon the specific classrooms in which teachers practice. Too much noise and disorder during student teachers' practice teaching is empirically related to weaker expectations of mastery of classroom management (Christophersen et al., 2016; Juuti et al., 2018). Thus, it is not beneficial for student teachers to experience the most demanding classroom situations in their practice teaching.

Based on the measurements discussed so far, the word ‘crisis’ is hardly a general characteristic of quality dimensions in the Nordic countries’ teacher education programmes. The negativity with which teacher education in Scandinavian countries is discussed indicates that teacher education environments may face public relations challenges. The term ‘crisis’ should be reserved for the case of providing teachers with adequate competence. It is the responsibility of the Nordic states to ensure that sufficient education is provided and that teachers develop adequate competence.

We believe that the samples capture significant trends in student teacher populations, although we cannot claim that the samples are representative. The possibility of sample bias must be investigated in future studies, especially those based on representative samples, so that conclusions can be drawn with more confidence about the samples’ reference populations and quality differences between Nordic countries. Nordic comparisons can also be useful for setting benchmarks for education policy with the aim of improvement.

This comparison of the central tendencies and spread of different quality aspects has revealed nuances in the Nordic countries that should be carefully considered. We note above that there is more than one standard deviation between Finnish and Danish student teachers’ evaluations of the relevance of educational theory teaching to practice. This significant difference in Denmark’s favour will likely surprise many readers, as Finnish teacher education has been characterized as ‘outstanding’ and ‘excellent’ by international organizations (e.g., OECD, 2012, 2016) and other evaluators (e.g., Darling-Hammond, 2017; McKinsky, 2007). In addition, several books by Pasi Sahlberg that deal with Finnish teacher education and Finnish schools have received significant international attention, giving a positive image to Finnish teacher education. Renowned educational scholars who publish in high-ranking scientific journals have also emphasized the high quality of Finnish teacher education (e.g., Darling-Hammond, 2017; Tatto, 2015).

Our study does have some limitations. First, it should be emphasized that our questionnaire instrument may not capture significant quality aspects (see, e.g., Afdal & Nerland, 2014; Andersen, 2015; Lillejord & Børte, 2017). For example, Afdal and Nerland (2014) found some marked differences in the way teachers talk about their professional knowledge and the way they approach challenges in practice, but this was not captured in our study design. It is possible that the instruments we used should have been fine-tuned to tap into more significant qualities that were lost in the first round of our research. On the other hand, Afdal and Nerland’s (2014) findings are based on interviews with 12 newly qualified teachers in Norway and Finland, while our study is based on a much larger sample. When there is discrepancy between studies (for example, this study and Andersen et al., 2017), it would be interesting for future research to explain these differences to achieve a more secure empirical basis for qualitative evaluations. Elstad et al. (2021a) explore differences between the Finnish and Norwegian teacher education arrangements through structural equation modelling and ask whether a common model approach is better than an approach with separate models? The results of testing whether separate models for Norway and Finland fit better than a common model show that the common model approach fits just as well as the separate model approach. One

interpretation of this inference is that the statistical associations in the data sets from Norway and Finland follow the same main patterns. These results emerge through an analysis of quality aspects of teacher education in the two countries, as the student teachers perceive quality differently.

We have argued that it is scientifically worthwhile to compare quality aspects of teacher education programmes in the Nordic countries. However, it remains unclear whether this type of analysis and subsequent benchmarking can lead to constructive improvements in the design of teacher education programmes. This topic should be addressed in future research, particularly longitudinal studies.

12.4 Nordic Student Teachers' Time on Task: Comparisions

Time on task in higher education has emerged as an increasingly important aspect of the debate over good education. In order to develop both teaching competence and a robust identity as a teacher, student teachers must be present and actively participate in organized teaching (SOU, 2017, p. 35). The Swedish Higher Education Authority (2015) assumes that student teachers should normally study for 37.5–45 h per week, while the Danish Ministry of Education and Research states that 43 h per week constitutes full-time study. The Norwegian authorities also believe that the time on task in higher education as reported in some studies is too low, but they have not established a numerical threshold. Storting representatives from the Labour Party believe that 'the time spent by student teachers on studies (should) rise to the average of students otherwise, preferably more' (Stortinget, 2019a).

The results of different time-on-task surveys in the same country may vary, partly because such surveys are based on informants' memory and thus involve estimates. Indeed, few informants may accurately report their time on task. One could argue that mistakes will be revealed by obtaining information from many informants. However, there may be systematic sources of error in time-on-task studies as different studies are organized differently. This may lead to error if, for example, highly structured studies with a high incidence of laboratory use (e.g., those conducted by pharmacy students) are compared with studies with a high incidence of self-study. Politicians have acknowledged this: 'The majority of the committee [...] does not deny that there may be a correlation between students' time on task and student satisfaction and accomplishment, but questions whether a comparison of time on task between highly different educations is relevant as an indicator of the quality of teacher study and students' efforts' (Stortinget, 2019a, b).

The time when a time-on-task measurement is performed may be another source of error. For example, there is evidence to suggest that student teachers' time on task is higher in practice periods than in campus teaching (Martinussen & Smestad, 2011). However, this source of error can be avoided by clarifying that questions refer only to the campus situation. The source of error in time-on-task studies may be less significant if studies with the same characteristics are compared (the approach taken in this chapter). We reduced the problem of discretionary estimates

by splitting time on task into predefined categories: lectures, seminaries, colloquia and individual study work.

Student teachers' time on task has become important in political debates. The following contributions from Storting representatives provide an example of the debate in Norway:

> Teacher education also stands out negatively in terms of study intensity, i.e., how much time the students spend on teacher studies on average. The 2018 study barometer shows that while most students in Norway study around 35 hours a week on average, student teachers spend about 5 hours less than this: 30 hours in elementary teacher education for grades 1–7, 28.5 hours in elementary teacher education for the 5th through 10th steps and 30.8 hours in associate's education. There is a clear connection between organized activity and self-study, and teacher education is among those with the least self-study. (Stortinget, 2019a, b)

Many consider time on task to be an indicator of student quality, and some evidence supports this notion (Karweit, 1984). Furthermore, it is believed that learning progress depends on the quality of campus teaching, the student teachers' own motivation, prerequisites for performing tasks associated with the teaching profession, the quality of the guidance students receive in practice teaching at schools and their own learning work while they are students. These factors are interconnected, which makes it difficult to isolate the significance of a single factor in a way that clearly indicates the quality of a study.

The amount that student teachers learn depends on, among other things, how much time is actually spent on learning work and the effort that students put into working with the learning material. The relationship between time on task while studying and achievement is a controversial topic in both educational research and other types of performance research, but it is widely recognized that this relationship is not linear (Berliner, 1990). If the student teacher does not work effectively, there is no automatic clear connection between time on task and the development of knowledge. On the other hand, it is difficult to envision learning progress without spending sufficient time on learning work. Here, time on task during study is regarded as a condition for learning in campus teaching. We argue that reasonably high time on task during study and in the campus-based part of teacher education are important prerequisites for campus education to function as intended, to create a foundation of competence so that student teachers can teach academic content and direct students' learning work during the practical periods and later as professional teachers and to contribute to change competence; that is to say, the competency provider is sufficiently robust to enable the student to later relate to changes that occur as a professional teacher. In this chapter, we refine the problem area, focusing on student teachers' time on task while studying on campus.

The time-on-task measurements used in research are controversial (Fisher & Berliner, 1985; Rosenshine & Berliner, 1978; Walberg, 1988). It is frequently used in mission research (e.g., Das Deutsche Zentrum für Hochschule- und Wissenschaftsforschung (DZHW), 2018). Assignment research has found that the time-on-task profiles vary not only in different types of studies but also systematically between countries. For example, one study showed that the average time on task for organized education (including higher education) is lowest in Sweden. at

10 h per week, with the other Nordic countries ranging from 13 to 19 h per week. In contrast, the number of hours of self-study is highest among Swedish students. However, the measured time on task among Swedish students varies significantly by type of study. This justifies a new look on how time on task is divided into different types of activities – lectures, student-led colloquia, teacher-led seminaries and individual studies – and a comparison of the total time on task in studying (calculated as the sum of lectures, seminaries, colloquia and self-study).

Student teachers' motivation to study has been highlighted as an important factor. Motivation requires goals for one's own actions, and motivation researchers have identified different types of motivation (external, intrinsic and altruistic) for choosing teacher education and thus the teaching profession (Balyer & Özcan, 2014; Kyriacou & Coulthard, 2000; Roness & Smith, 2010; Thomson et al., 2012). External motivation can be divided into several subcategories (Ryan & Deci, 2000), but generally, recognition will result in motivation (often referred to as achievement goals; see Elliot & McGregor, 2001). Intrinsic motivation is an inner drive to perform a task. For example, a student teacher may want to become a teacher because he or she wants to help students learn and is excited by the profession. An altruistically motivated teacher views teaching as socially worthy and important work. This is an important category of motivation for student teachers (Roness, 2011). However, in many cases, student teachers must find a balance between several types of motivation (Struyven et al., 2013), making it necessary to investigate altruism, recognition and study absorption more closely.

A number of studies have found that self-discipline (also called self-control) is of great importance for the completion of studies, study performance and other factors (e.g., Tangney et al., 2004). Self-discipline can be understood as a more or less permanent personality trait (Blickle, 1996), but no one is inextricably locked into a personality. Except in very special situations, everyone has choices and thus the opportunity to change their behavioural patterns. In the context of this study, self-discipline is treated as a driver of individuals' ability to carry out their studies (Zimmerman, 2002) and may be triggered by academic requirements. Therefore, it is important to study self-discipline and academic requirements in context (Christophersen et al., 2015). In the survey, we also included questions about the degree to which student teachers had teacher role models. Furthermore, we included two different goals related to mastering expectations about teaching during practical periods (engaging students in academic work and the ability to keep order in teaching situations, which we call self-concepts 1 and 2, respectively, in Table 12.2).

So far, we have mentioned factors that can be considered characteristics of individual students and that we believe are related to time on task while studying. However, student teachers' time on task can also be understood as a response to demands and tasks that require student teachers to perform in the study programme. For example, some parts of the teacher education programme may require students to submit assignments that are corrected and evaluated by teacher educators, who can demand greater effort in their feedback on student presentations and assignments.

Table 12.2 shows the results of various aspects of Nordic student teachers' motivation and time on task. A seven-part scale was used in the questionnaire (1 = strongly

Table 12.2 Results of various aspects of Nordic student teachers' motivation and time on task

	Norway			Finland			Denmark			Iceland			Sweden		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
Professional identity	625	5.74	1.14	156	5.90	0.96	1507	5.63	1.05	302	5.45	1.33	134	6.09	0.88
Self-concept 1	580	5.32	0.80	156	4.98	0.69	1505	5.41	0.78	302	5.39	0.95	131	5.60	0.89
Self-concept 2	629	5.47	0.80	156	5.29	0.78	1504	5.38	0.82	301	5.25	0.98	132	5.57	0.98
Study absorption	631	3.42	1.24	156	3.20	1.21	1501	3.58	1.15	301	3.48	1.25	131	3.27	1.19
Self-discipline	630	3.55	0.82	156	3.25	0.75	1506	3.63	0.78	304	3.67	0.92	133	3.83	0.86
Altruism	624	6.23	0.67	156	5.78	0.69	1506	6.09	0.64	301	6.12	0.79	133	6.25	0.57
Recognition	631	3.58	1.22	156	2.82	1.03	1504	3.90	1.28	302	3.56	1.24	132	3.77	1.35
Study requirements	629	4.80	1.42	155	4.33	1.36	1500	4.48	1.28	300	4.85	1.46	123	3.96	1.29
Teacher role models	628	3.87	1.39	155	3.79	1.17	1495	3.88	1.31	280	4.15	1.36	133	3.27	1.46
Class disorder	615	3.35	1.18	152	3.54	1.05	1458	3.74	1.10	263	3.24	1.24	126	3.88	1.37
Lectures	617	8.87	5.17	147	8.25	4.22	1417	9.58	6.63				112	5.17	2.82
Seminaries	594	3.70	3.24	147	6.88	3.49	1294	8.21	5.62				106	2.60	2.38
Colloquium	602	2.73	3.07	136	1.34	2.26	1459	7.13	4.34				106	2.99	4.08
Individual	622	11.73	8.01	148	10.72	7.96	1452	8.47	5.60				104	16.69	11.24
Total time on task		27.13			27.19			33.39						27.45	

Table 12.3 Accepted values when estimating time on task

	Norway, Finland and Denmark	Sweden
Lectures	Values <31 are accepted	Values <150 are accepted and divided by 5
Seminaries	Values <31 are accepted	Values <150 are accepted and divided by 5
Colloquia	Values <31 are accepted	Values <150 are accepted and divided by 5
Self-study	Values <61 are accepted	Values <300 are accepted and divided by 5
Total	Values <71 are accepted	Values <71 are accepted

disagree, 4 = neither agree nor disagree, 7 = strongly agree). With the exception of the term 'turmoil in practice', a high average value indicates high quality. The individual questions included in the aggregate variables are presented in Appendix. Table 12.3 shows the values of the time on task we included. As the Swedish survey used a different length of time than a week, we converted the Swedish values to hours per week.

Time on task among Swedish student teachers shows that a relatively small proportion of the time on task is used for teacher-led teaching. This aligns with previous Swedish studies that problematize this topic (see The National Union of Teachers in Sweden, 2016; The Swedish Confederation of Professional Employees (TCO), 2013; The Swedish Higher Education Authority, 2017). The average amount of time that Swedish student teachers engage in teacher-led teaching is 9 h per week (DZHW, 2018), while self-study and group work combined constitute 22 h per week (The Swedish Higher Education Authority, 2017). In our survey, Norwegian, Swedish and Finnish student teachers spend about the same time on campus studies, but the distribution of study activities is different. The time on task in Danish teacher education is far higher than in the other Nordic countries.

We find somewhat higher time on task in the Danish data set than Rambøll (2018), in which student teachers were asked the following:

> How many hours did you spend on the following activities during an average teaching week (seven days) in the last semester?
>
> - Educational activities in which a teacher participates (lectures, team teaching, tutoring, practice lessons, etc.)
> - Teacher-initiated preparation (reading syllabus, doing homework, exercises or assignments individually or in reading groups, analysing data, other academic activities)
> - Self-initiated preparation (e.g., reading supplementary literature and independent studies)
> - Activities that are related to education but are not directly related to a subject (e.g., participation in professional, social or political student organizations)
> - Study-relevant work

Rambøll (2018) found that a group of 'ordinary students' spent an average of 30.3 h per week on these activities. If we deduct activities related to education that are not directly related to a subject, the average number is 28.8 h per week. This

questionnaire survey was conducted by Rambøll (2018) among all fourth-year students teaching in a primary school who were enrolled in a teacher education programme in Denmark at approximately the same time as we conducted our survey (December 2017 and January 2018). Of 2222 students asked, 792 answered Rambøll's (2018) questionnaire, corresponding to a response rate of 36%. We do not know whether the dropout rate was random.

Our survey was conducted at two large teacher education institutions in Denmark, and our response rate was close to 100%. No student who participated in compulsory education chose not to participate in the study, but those who were not present in the teaching situation were obviously not included. The choice of only two professional colleges may result in a sample bias even though the response rate was so high. We also acknowledge that the results do not matter much in the two time-on-task surveys. Our measurements were carried out with the same instrument for measuring teacher education in all Nordic countries. Our surveys indicate that the average in the Danish data set is clearly the highest among the Nordic countries (although Iceland was not included in the time-on-task measurements because a significant number of students engaged in part-time study and distance education).

The Danish press reported that students in Danish primary school teacher education spend an average of 24.6 h on study activities, and Education and Research Minister Tommy Ahlers argued that this was not enough (Politiken, 2018):

> I am concerned about the academic level and especially the study intensity, which is too low. Teaching is an incredibly important job, and we need dedicated and academically strong teachers who can give our children a good start in life, so that they have the skills and desire to take a youth education.

Our survey shows that the Danish student teachers excel in terms of time on task while studying compared to student teachers in other Nordic countries. Indeed, the average number of teaching and supervision hours increased following the 2012 Danish teacher education reform (Rambøll, 2018).

Student teachers' time on task while studying has received a great deal attention in the Nordic countries. Our study shows that student teachers' time on task is similar in Norway, Sweden and Finland but clearly higher in Denmark. We have previously analysed the precursors of time on task among Norwegian student teachers using structural equation modelling and showed that academic requirements, self-discipline and external recognition are statistically related to time on task, while altruistic motivation is not (Christophersen et al., 2015). One possible conclusion to draw from these results is that if time on task is too low, it can be increased by introducing higher professional requirements. Time on task can thus be seen as the response of rational decision makers to situational conditions (Elstad, 2003). However, should the time on task be increased through academic requirements (such as multiple assignments, more exams or more time-intensive work), changes in resource use or additional resources to fund such initiatives are required. The Norwegian government has contributed to the financing of time-intensive forms of work and expressed its expectation that teacher education institutions will follow up with students to ensure higher time on task (Nybø, 2019):

> How we can make student teachers spend more time on their studies is a recurring theme in our communication with the sector. The Ministry meets universities and colleges with clear expectations and has provided funding for the sector to identify ways of working that can promote higher study intensity and student activity.

The Minister of Higher Education is correct in noting that the ways in which students study may impact their time on task, but other factors must also be highlighted, such as the types of exams they are given and the degree to which the seriousness of life is reflected in study requirements and exams (Elstad, 2003). Future research must investigate whether these measures lead to the desired results.

12.5 Which Factors Are Related to Nordic Student Teachers' Turnover Intentions?

The dropout rate of student teachers is a problem in all Nordic countries – and in many other places – but to varying degrees (Sutcher et al., 2019). Dropout in a study programme can be measured as the difference between the number of registered students in a programme in the first year of study and the number of registered students who complete the programme. Cumulative dropout can also be measured throughout the period of study. However, measuring dropout is complex, as some student teachers complete their studies many years after the bulk of their cohort has graduated.

The reasons why student teachers quit are also complex. The decision to drop out may be related to many factors, such as personal reasons (e.g., the kindergarten attended by their own child is too far from the teacher education institution) or to pursue other studies (the so-called opt-out). In this chapter, we focus on the process and thoughts that precede the choice to quit teacher education. The path from intention to action involves multiple mental transitions (Ajzen et al., 2009), meaning that student teachers can think about quitting before – perhaps long before – making the final decision to leave.

The purpose of our analysis is to seek factors that may be empirically related to thoughts of quitting, including perceptions of the quality of campus teaching in educational theory and subject didactics, perceptions of the integration of theory and practice into practice guidance, how the practice supervisor supports the student teacher's development of mastery of teaching assignments, perceptions of the academic requirements of the teacher education programme, various aspects of teaching (including expectations of mastery of engaging students and classroom management), student teachers' engagement in the programme, their motivations (grounded in altruism and recognition), the importance of experiencing role models in teachers and their total time on task in their studies. First, we describe the situation in the five Nordic countries in terms of recruitments and dropouts; we then present the correlation coefficients between the aforementioned factors and turnover intentions. Finally, we report implications for further research.

12.5.1 The Situation in Different Nordic Countries

The labour market for teachers differs widely around the world. In the Nordic countries, varying proportions of principals are reported to face difficulty hiring people they consider well-qualified teachers (OECD, 2016), indicating that there may be geographical differences within individual Nordic countries. Teacher shortages are usually defined as the inability to fill vacant teacher positions at current salaries with people qualified to teach the subjects and levels in question.

Finland

In Finland, teacher education programmes are popular. However, the total number of applicants for these programmes has decreased over time, from 24,466 in 2015 to 19,601 in 2018. About 72% of applicants are asked to take an entrance exam, and about 34% of those who took the entrance exam enrolled in a teacher education programme. In 2018, most Finnish universities had to admit applicants with slightly weaker results on the entrance exam than in previous years (National selection cooperation network in the field of education (VAKAVA, 2019)). There are no official statistics regarding dropout from teacher education programmes, but several sources (e.g., Bjerril, 2019; Darling-Hammond, 2017) indicate that the dropout rate is low. However, others state that some students delay completing the programme for up to 10 years (Juuti, 2019). Despite this, a lack of teachers has not been identified as a problem in Finland. In fact, there have been times when there were too many teachers.

Sweden

As of 2011, in order for a teacher to gain permanent employment and assign grades independently in Sweden, they must have a teacher certification. One-fifth of certified primary and secondary school teachers are 60 years of age or older, and in many municipalities, the proportion is even greater. Thus, many teachers are expected to retire in the next few years. In the 2018–2019 school year, 70.5% of primary school teachers were qualified and had credentials (Skolverket, 2019a, b), indicating a notable lack of fully qualified teachers. The number of learners is expected to increase by 350,000 over the next decade, an increase of 15% over 2017. In total, schools must recruit 187,000 full-time teachers by 2031 (Statistics Sweden (SCB), 2018; Swedish Association of Local Authorities and Regions SKL, 2018). To meet Sweden's future need for competent teachers, the volume of admissions to teacher education programmes must increase by a significant proportion(Swedish Association of Local Authorities and Regions (SKL), 2018).

This is major challenge for Swedish society, and there are several indications that Swedish authorities have given up on teacher credentials as the main model for education. In June 2019, a measure called 'Introduction for unauthorized teachers in the school' was implemented (Skolverket, 2019a, b). The initiative was based on texts, films and links to in-depth information about, among other things, school tasks and management documents, teachers' assignments and how to provide effective and varied teaching. Thus, a situation in which a significant proportion of teachers lack adequate education is being normalized.

The number of applicants to Sweden's teacher education programmes has not been sufficient to meet the future need for teachers. This has allowed many students with very low grade point averages to be admitted to these programmes. To overcome this, in 2021, grade requirements for admission to teacher education programmes, similar to those in Denmark and Norway, will be implemented.

Whether this measure will lead applicants with stronger higher education records finding teacher education programmes more attractive remains unknown, as this is an empirical question that is impossible to answer today. A report from The Swedish Higher Education Authority (2015) shows that higher education grades are statistically related to both dropout and student achievement in teacher education programmes; teacher education students with good grades from higher education tend to complete the programmes and achieve higher grades. The Swedish Higher Education Authority (2017) notes that continuing to expand the volume of teacher education applicants is likely to be difficult if higher grade requirements are implemented, but that the dropout rate may be reduced if the intake requirements are increased.

In order to meet the future need for teachers with an increased supply of newly qualified teachers, 25% of all upper secondary school graduates would have to enrol in a teacher education programme (Bergling, 2017). This is scarcely possible, let alone likely. However, there are 40,000 educated teachers who are no longer in schools, comprising 14% of all educated teachers. About 60% of this population may want to work as teachers again if working conditions were suitable (SCB, 2017).

Therefore, the solution to the increased need for teachers involves a combination of several factors, including adding qualified teachers with a background in other professions (by making teaching a more attractive profession), increasing the volume of teacher education students and reducing the dropout rate in these programmes. Additionally, as part of a new strategy, Swedish authorities have decided that first-time teachers should receive a salary supplement of 10,000 Swedish crowns (almost 1000 euros) per month, and the school sector has been provided with more funds to create more equity in the schools. In many of today's Swedish schools, teachers with credentials are in the minority.

Denmark

In 2012, the Danish Parliament passed a new teacher education reform that introduced the first admissions requirement for teacher training programmes. Since 2013, prospective students must have an average grade of 7 (on a scale of 1–12) to be admitted to such a programme; applicants with a lower average must undergo an admissions interview. One of the aims of the 2012 teacher education reform was to make primary school teacher education more attractive and avoid dropout. But this has not happened, according to figures from Denmark's Ministry of Education and Research, as 15% of students in one cohort had quit by the end of the first year, 25% by the second, 29% by the third and 31.5% after the fourth. This is roughly the same pattern in average dropouts from 2006 to 2012, after which the government changed the admission requirements for education programmes. The number of primary

school teachers fell by 15% from 2009 to 2017, with the number of primary school learners dropping by only 5% over the same period (Ministry of Education, 2019). Thus, a significant number of those teaching primary school lack adequate education, and this number has more than doubled since 1997. Furthermore, analysis shows that the selection of student teachers is worrying, as fewer and fewer of the country's most talented young people become teachers, while a significant proportion of educated primary school teachers do not work in schools. Thus, primary schools face difficulties in retaining the best teachers. The proportion of teachers without education has grown from 8% in 1997 to 18% in 2017. Finally Danish student teachers have an average skill level below that of student teachers in the other Nordic countries (Søndergaard et al., 2019).

Forecasts indicate a drop in primary school teachers until the year 2022. This represents a challenge for some Danish municipalities. However, a surplus of primary school teachers is expected between 2023 and 2030 (Lange Group, 2017). These figures are based on certain assumptions about the future need for teachers, geographical patterns of access to vocational colleges' teacher education programmes, current completion patterns and current geographical patterns of transition from educational programmes to employment in municipal primary schools.

Norway

As of 2009, prospective students aiming to enrol in a teacher education programme in Norway must have a grade average of 3.5 (with 6 the best grade) in upper secondary school. In 2016, the requirement for a grade of 4 in mathematics was added. Norwegian education authorities have argued that grade requirements are important for improving the status of the teaching profession. However, there has been no discussion of legislating the right to be taught by qualified teachers, and there is no political majority that supports that principle. Even with stricter grade requirements and a longer period of study in Norway's new 5-year master's degree programme, primary school teacher education still attracts many students, with the number of students increasing from 2017 to 2018. More women than men choose to pursue teacher education, but the gender distribution has become somewhat more even. Statistics Norway has made forecasts regarding the relationship between teacher demand and access to different teacher groups based on realistic expectations of the number of students, completion percentage, retirement propensity (for those over 62 years) and employment distribution. However, regional biases were not taken into account. Furthermore, supply and demand are projected separately, meaning that adjustment mechanisms between supply and demand (such as changes in wages) were not included in the calculations. Of the various teacher groups, it is only among primary school teachers that Statistics Norway estimates a deficit (i.e., a higher demand than supply). Starting in 2017, the number of elementary school teachers was expected to fall. This deficit was expected to increase to around 3000 full-time equivalents in 2020, 4000 in 2030 and 6700 in 2040. It is difficult to maintain a sufficient number of primary school teachers given the projected growth in

demand (based on the number of future children of primary school age). It is worth noting that these calculations are based on assumptions about the current degree of completion, and if more people complete their education, future conditions may change. Factors that may influence the degree of completion include current educational policy, changes in salary conditions or other incentives. If a higher completion rate is achieved by addressing these factors, the deficit in primary school teachers will be reduced.

A dropout survey conducted on behalf of an expert group showed that many students quit for reasons that have nothing to do with the quality of their studies or other factors that the educational institution can address (Follow-up Group, 2015). However, that analysis also showed that the grade point average required for admission and learning pressure (as measured by the number of required assignments) can each play a role.

Just under 50% of primary school teacher education students who started in 2010 completed their education in the standard period of time; a smaller proportion of students whose progress was delayed completed the programme at a later date.

From 2008 to 2018, 8100 teachers switched from teaching in one school to another (Statistics Norway, 2019). Of the almost 20% of teacher educators who quit their jobs at schools, 5% went to jobs in other areas of the educational sector and 12% went to other industries (e.g., public administration). In the same period, 3700 former teachers, many of whom were younger women, returned to the teaching profession after working elsewhere, but the current size of this reserve of teachers is uncertain (TSN Gallup, n.d.).

Iceland

Eyjólfsson and Jónsson (2017) estimate that Iceland will see a 14% increase in the number of young people aged 6–16 from 2017 to 2034, followed by a decrease from 2034 to 2050. However, the average age of teachers in Iceland has been rising in recent years, and Sigurdardottir et al. (2018) documented a significant reduction in the number of educated teachers following the 2011 Icelandic teacher education reform. Icelandic teacher education is in a difficult situation. Many leave the profession after a short time, and there are a substantial number of people who have completed a teacher education programme but work in other professions (Eyjólfsson & Jónsson, 2017).

The problem is that admission to primary school teacher education programmes was sharply reduced after the recent teacher education reform and has not rebounded sufficiently to meet the need for this skilled labour. Simultaneously, the largest cohort of teachers in history is retiring, meaning that Iceland's shortage of teachers will increase significantly over the next few years. In recent years, more and more student teachers have attended two-year master's programmes after obtaining bachelor's degrees. These programmes involve practice in schools, in which student teachers are given the full responsibility and workload of regular teachers and receive salaries (albeit at slightly lower rates than those earned by fully certified teachers).

12.5.2 Results and Discussion

Table 12.4 shows the correlations between Nordic student teachers' intention to quit and a number of factors related to their perceptions of aspects of the study programme, their motivation and their time on task. Correlation measures the underlying dependence between two variables. The coefficient will always be between −1 and 1, and a correlation coefficient close to zero means that there is no linear relationship between the two variables. A positive coefficient indicates a positive empirical relationship, while a negative coefficient indicates the opposite. Correlations greater than 0.30 are in bold in the table. The individual questions underlying the aggregate variables in Table 12.4 are presented in Appendix.

Turnover intentions are measured by indicators of the degree to which a student teacher thinks of career opportunities other than teaching, the degree to which other professions appear more attractive than teaching and so on. The factor that is most strongly associated with completion of a teacher education programme is professional identity, as measured through questions about the degree to which a student teacher looks forward to working as a teacher, how connected the student feels to

Table 12.4 Relationship with Nordic student teachers' turnover intentions: correlations

	Norway		Finland		Denmark		Iceland		Sweden	
	N	r	N	r	N	r	N	r	N	r
The practical relevance of educational theory teaching	625	−.166	156	.053	1479	−.209	262	−.255	131	−.046
The practical relevance of subject didactics teaching	603	−.122	155	−.050	1483	−.222	270	−.203	132	−.090
The relationship between theory and practice in teacher education practice periods	622	−.246	154	−.141	1461	−.201	274	−.122	131	−.086
Practice supervisor	625	−.187	151	−.134	1455	−.131	269	−.181	130	−.038
Personalized support in practice supervision	621	−.256	154	−.032	1450	−.132	268	−.069	132	−.131
Class disorder	613	.162	152	.155	1450	.131	262	.107	125	.165
Study requirements	626	−.022	155	−161	1486	−.087	279	−.057	123	.230
Professional identity	622	−.636	156	−.741	1489	−.602	277	−.510	132	−.475
Self-concept 1	577	−.342	156	−.144	1487	−.176	278	−.135	130	−.246
Self-concept 2	625	−.278	156	−.233	1488	−.164	278	−.232	132	−.248
Study absorption	627	−.234	156	−.303	1488	−.283	278	−.307	130	−.124
Self-discipline	626	.159	156	.096	1491	.124	279	.082	132	.043
Altruism	621	−.357	156	−.523	1491	−.360	278	−.242	132	−.277
Recognition	627	.049	156	.138	1489	−.022	280	−.106	131	−.116
Teacher role models	626	−.021	155	.019	1484	−.124	278	−.083	132	−.061
Total time on task	566	−.204	134	−.202	1235	−.058			97	.028

the teaching profession, and whether the student feels good when thinking about 1 day becoming a teacher. Our findings are similar to those of Bergmark et al. (2018), who found a close relationship between students' motives for choosing teacher education (the opposite of considering quitting) and what they call 'attachment to the teacher profession'. For all Nordic countries, the size of this correlation factor was high and negative in our results. This means that students with a weak professional identity score high on the question about thoughts on quitting the teacher education programme. The measurements do not show the direction of causal processes, but it is reasonable to assume that identity is connected – positively and negatively – to thoughts of quitting the programme. One possible interpretation is that if a teacher education institution admits more student teachers with a strong potential professional identity, the likelihood of dropout is lower. If this assumption corresponds to causal processes, a system in which student teachers are admitted to a programme involves an admission test of, among other things, the strength of the applicant's desire to become a teacher, would be well justified. Admission interviews are conducted in Finnish – and sometimes Danish – teacher education programmes, and there are plans to establish a similar process in Sweden.

The relationship between professional identity and dropout rate has also been identified in studies involving other countries. For example, Hong (2010) found that student teachers' professional identity is related to aspects of their decision to leave education. Several different groups of student teachers and newly qualified teachers were included in Hong's survey. Interestingly, student teachers who had completed practice teaching had less idealistic views than those who had not completed it. In other words, practical experience strengthens students' perceptions of reality.

One implication for practice is that if the statistical relationship between professional identity and thoughts of dropping out is causal, we can say that awareness of applicants' potential professional identity will be beneficial for preventing dropout. In the Norwegian data set, there are clear correlations between student teachers' expectations of mastering various aspects of teaching (classroom management and eliciting student engagement) and the strength of their turnover intentions. This correlation is weaker in the data sets from the other Nordic countries. Noise and disorder in classes in which students practice teaching are not strongly associated with the idea of dropping out in any of the Nordic countries. This is somewhat surprising in light of the results of a study of Finnish primary school teachers (Heikonen et al., 2017). Academic requirements and thoughts of dropping out are weakly associated in all Nordic countries, with the highest correlation in the Swedish data set.

When it comes to motivational factors, there are several subtle differences among the Nordic countries. The correlation between thoughts of dropping out and the degree of absorption in studies is negative in all Nordic countries, particularly Finland and Iceland; the stronger the thoughts of dropping out, the weaker students' absorption in their studies. Similarly, Kim and Corcoran (2018) found a strong empirical relationship between students' engagement in a campus environment and endurance (the opposite of thinking about dropping out). We assume that study absorption and endurance are related variables.

A relationship between altruistic motivation and thoughts of dropping out can be found in the Norwegian, Finnish and Danish data sets, and a somewhat weaker connection can be found in the Swedish and Icelandic data sets. The stronger the altruistic motivation, the weaker the tendency to think about dropping out. Whereas Bergmark et al. (2018) found that Swedish student teachers had altruistic motives for choosing teacher education, this relationship is relatively weak in our Swedish data set. Roness (2011) found that altruistic motivation is present among Norwegian student teachers, which accords with our analysis. Additionally, we found a strong negative association between altruistic motivation and thoughts of dropping out in the Finnish data set and a moderately strong negative relationship in the Norwegian and Danish data sets. Self-discipline was only very weakly associated with thoughts of dropping out. Flores and Niklasson (2014) found that family and discussions with friends were important factors in the choice to pursue teacher education and thus the teaching profession. In our study, this factor was very weak in all the Nordic countries.

12.6 Conclusions

An individual who chooses to pursue teacher education and the professional life of a teacher will be able to work in that role for up to 45 years before reaching retirement age. However, many who have undergone teacher training choose to leave the teaching profession in favour of alternatives. Thus, there is a reserve of educated teachers who in principle could choose to return to the profession; whether this is actually possible must be considered, as this is a ready source of teachers who already have adequate education to meet current and perhaps future demands. The challenge associated with qualifying enough teachers with adequate competence is unevenly distributed in the Nordic countries. In principle, there is an internal Nordic labour market for teachers in which current regulations provide opportunities for students to obtain teacher education from another country and achieve an adequate education for the teaching profession. In principle, it is also conceivable that if there are, for example, mathematics teachers with adequate competence working in other fields, market mechanisms can be deployed to set an attractive salary and encourage these teachers to return to the teaching profession. However, the empirical question of whether this type of market mechanism can actually be implemented remains unanswered.

The second source of teachers is teacher education. Dropout rates vary among Nordic countries' teacher education programmes and are relatively similar within the teaching profession. With the exception of Finland and the nuances of the Danish situation, the inadequate supply of newly qualified teachers is a real challenge. Thus, it is important to explore which factors are related to student teachers' thoughts of dropping out of teacher education or choosing another profession after

they graduate. In this chapter, we have tried to explore statistical relationships between a number of factors and thoughts of dropping out. The clearest connection is the negative relationship between professional identity and the idea of dropping out, which was strong in all Nordic countries. If we believe that this context reflects causal processes (something we cannot prove in this context), we must consider the applicants' professional identity when they seek admission to teacher education.

Our empirical findings can be built upon by more fine-grained studies of various aspects of professional identity. One promising area to pursue is Hong's (2010) six subgroups of professional identity: values, mastery expectations, commitment, emotions, knowledge and micropolitics. Those student teachers and novice teachers who had the most naive and idealistic views of vocational tasks showed the greatest emotional fatigue following their practical experience; future studies should follow up on this finding. Emotional fatigue can be a motive for leaving teacher education or the teaching profession (Skaalvik & Skaalvik, 2011). The question, then, is what constitutes a healthy amount of optimism and an unhealthy amount of idealism? Should we recruit student teachers with a realistic view of the stresses in the teacher profession rather than those with a strong, idealistic, and well-considered teacher identity? Conducting interviews as part of the admissions process may be one way to determine whether applicants to teacher education programmes have a sufficiently robust perception of the potential stresses of the profession. In addition, Bruinsma and Jansen (2010) found significant gender differences in the motivation to undergo teacher education, a topic that is worth pursuing in future research.

Weaker empirical relationships can be found for categories other than professional identity and thoughts of dropping out in Table 12.4. Student teachers' altruistic motivation to become teachers is one factor to consider, but its relationship with thoughts of dropping out is not particularly strong in Sweden and Iceland. Thus, it must be concluded that, beyond these two previously mentioned factors, there is no clear empirical pattern in the correlations between thoughts of dropping out and other factors. This means that we need more research on student teachers' perceptions and preferences to determine how dropout from teacher education can be prevented. Due to the peculiarity of the phenomenon, longitudinal studies should be funded.

All research has some limitations, and this study is no exception. First, correlation is not necessarily an expression of causality. Furthermore, correlation studies are ranked lower on evidence hierarchies than, for example, efficacy studies based on randomized controlled experiments. On the other hand, Lipsey and Wilson (1993) showed that there are small differences between randomized and non-randomized studies. Regardless, the degree of bias in a sample may play a significant role, as we have noted above. Finally, the samples from Sweden and Finland were each collected at a single institution, which weakens their external validity.

Appendix. Overview of Single Items Underlying the Constructs

Professional identity
- I feel connected to the teaching profession
- I get good feelings when I think that 1 day, I will become a teacher
- I look forward to working as a teacher

Self-concept 1 (mastery expectations related to the challenge of engaging students in the learning process)
To what extent will you as a future teacher

- manage to motivate students who show little interest in schoolwork?
- manage to make students believe that they can actually do well in school?
- manage to make students appreciate learning?
- manage to make students ambitious?

Self-concept 2 (mastery expectations related to keeping order in classroom situations)
To what extent will you as a future teacher

- manage to cope with the students with the most difficult behaviours?
- manage to get students to follow school rules?
- manage to create a safe environment for all students?
- manage to establish a good learning environment?

Study absorption
- I get so engrossed in my studies that I almost forget other things around me
- Time flies when I study
- I find it difficult to tear myself away when I start reading the syllabus
- I feel full of energy when I am studying
- When I wake up in the morning, I look forward to starting my studies

Self-discipline
- I usually complete assignments well in advance of deadlines
- Although I set aside time to study, I still do not get it done
- I often postpone what I should do until the last minute

Altruism
I want to become a teacher because

- It is exciting to teach
- I want others to be interested in learning
- It makes sense to work with children and young people

For me it is important

- to be a skilled professional
- to work with people

- to help people who need it
- to be a knowledgeable colleague

Recognition
For me it is important

- to be looked up to by the other students
- being referred to as the best in the programme
- to hear that others have a good impression of me

Study requirements
Compared to high school

- the academic requirements are greater in the teacher programme
- I need to spend more time to deal with teacher studies
- I struggle more to understand the syllabus

The practical relevance of educational theory teaching
In educational theory teaching

- I get practical examples from actual teaching
- I become acquainted with professional content relevant to the work of the teacher
- relevant examples from the school are presented
- the connection between educational theory and practice becomes clear

The practical relevance of subject didactics teaching
In subject didactics teaching

- I get practical examples from actual teaching
- I become acquainted with professional content relevant to the work of the teacher
- relevant examples from the school are presented
- the connection between subject didactic theory and practice becomes clear

The relationship between theory and practice in teacher education practice periods
During the practice periods

- I discuss with supervisors or practice teachers how the subject matter can be used to develop my teaching practice
- I discuss practical experiences with supervisors or practice teachers in light of what we have learned
- The supervisors or practice teachers associate practical examples with theories we know from studying
- I become familiar with how the academic subject is relevant in school

Practice supervisor
The practice supervisors

- are well acquainted with what I learn in educational theory and subject didactics
- help me connect theory and practice
- clarify ambiguities in the syllabus literature

- clarify the connection between educational theory and what I experience in school

Personalized support in practice supervision
- The tutorial talks at the practical schools help me understand what to do to improve myself as a teacher
- Conversations with supervisors and practice teachers at practice schools help me prioritize my daily practice as a student teacher
- Supervisors and practice teachers at the training schools give me clear feedback on where I stand
- The feedback from supervisors and practice teachers at practice schools is well aligned with what I have actually accomplished
- Feedback from supervisors and practice teachers at practice schools clarifies what is expected of me as a student teacher

Thoughts on leaving the studies
- If I find a well-paid job after teacher education, I will not work as a teacher
- I often think of career opportunities outside the teaching profession
- If I could choose again, I would have chosen something other than teacher education
- Other occupations are more attractive to me than the teaching profession

Teacher role models
- I have had teachers who are role models to me
- I want to become a teacher because I was inspired by good teachers that I have had
- I want to become a teacher because there are teachers in my family

Class disorder
During the last practice period, you taught one or more classes. How often did the events described below happen in your class hours?

- Students spoke out of turn
- Students disturbed fellow students' work
- Students were doing things other than what they should
- Students started working too late
- Students violated class rules
- Students violated school rules
- Students made unnecessary trouble
- Students verbally attacked other students
- Students left their desks without asking permission
- Students arrived late
- Students failed to bring relevant books

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Chapter 13
Bringing a Global Teacher Education Model to Scandinavia: Examining Teach First in Norway

Katrine Nesje

Abstract Teach For All (TFAll) represents a unique private–public partnership model of fast-track teacher education. This chapter explores TFAll's expansion to the Scandinavian countries and uses Teach First Norway (TFN) as the context for examining this employment-based route into teaching, focusing on individual participant perspectives. Contemporary career choices can be understood as fluid and negotiable, which has implications for the design of programmes that aim to effectively recruit competent professionals. Traditionally, research on the motivation for choosing teaching as a profession has been based on the assumption that people will commit to teaching as a long-term career. The relevance of this analysis may be decreasing, as many people seem to consider and pursue a range of career possibilities. This study used a multi-method approach to examine TFN participants' initial motivations for entering the programme and the development of their professional identities throughout. The findings show that the motivations for participating are complex, and the programme is perceived by many as an opportunity for self-development and resume-building. Participation in TFAll programmes might be viewed as part of a self-development project in which the candidates are given the opportunity to 'try out' teaching.

13.1 Introduction

Multinational corporations have taken initiatives related to teacher education. For instance, the international consultancy group McKinsey was behind this initiative 'Teach for America' and later in England: Teach First England (2001). This initiative has been spread to other countries. This chapter explores the Teach For All (TFAll) alternative teacher education programme's expansion to the Scandinavian

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countries and uses the Norwegian context to illuminate certain aspects of this employment-based route into the teaching profession.

While Finnish teacher education has gained international recognition for its high level of quality, traditional teacher-education programmes in the Scandinavian countries have been heavily criticised. Politicians, practitioners and researchers have expressed continuing concerns about the quality of teachers and their teaching. Also, high attrition rates among teachers is expressed as a particular concern in the Norwegian and Swedish contexts (Tiplic et al., 2015).

The field of education has for the last decades been subject to intense reform pressures with different aims, such as improvement of the quality of teaching and learning, addressing problems with the governance of educational systems and initiatives that are designed to make teaching careers more attractive to a broader range of graduates (Crawford-Garrett et al., 2021). This development has given rise to alternative routes into the teaching profession initiated not by government but by social enterprises backed by corporate sponsors (Tatto et al., 2017). TFAll is such a programme, often promoted as a remedy for improving educational outcomes for disadvantaged pupils (Crawford-Garrett et al., 2021).

TFAll, which originate from the Teach for America and Teach First UK programmes, represents a unique private/public partnership model of fast-track alternative teacher education with funding from foundations, corporations and government entities (Crawford-Garrett et al., 2021). TFAll programmes recruit high-achieving graduates with no previous teacher education and place them in teaching positions in schools for 2 years. Internationally, TFAll alumni point to diverse experiences associated with participating in the programme, from great satisfaction to disappointment and disillusionment. Some of the alumni maintain that the programme has provided them with valuable life experiences and the acquisition of leadership skills, while others report feelings of disappointment and a rejection of the assumption underlying TFAll that being academically high achieving makes you a good teacher (Nesje, 2018; Nesje et al., 2018b; Thomas et al., 2020).

TFAll rests on a two-part theory of change. Firstly, the programme recruits high achieving graduates who receive only a short period of preparation before entering the classroom as teachers, often to underprivileged populations. Secondly, the participants are offered leadership training with the expectation that they will transition into leadership positions in a variety of sectors and utilise their experience in classrooms to work for systemic change (Crawford-Garrett et al., 2021). An underlying assumption in TFAll is that by recruiting the 'best and brightest' (Blumenreich & Gupta, 2015) and offering them an alternative teacher education, one can affect educational outcomes, especially for disadvantaged pupils (Crawford-Garrett et al., 2021). Thus, these programmes overlook educational research showing that socioeconomic status and parents' educational background are the factors that have the greatest significance for student learning outcomes (Thomas et al., 2020).

TFAll can be seen as a manifestation of the rise of a global market-orientated neo-liberal political and economic agenda staged in the public policy arena (Moss et al., 2021). Market-based solutions have weak traditions in the Scandinavian countries' teacher education programmes, and TFAll has, until now, had a relatively

modest impact in Scandinavia. Nevertheless, the TFAll programmes offer a fast-track opportunity to enter the teaching profession in a period characterised by high teacher attrition rates, which makes these programmes interesting research sites.

In the Scandinavian countries, TFAll was quite recently introduced; the Norwegian programme was established in 2010, while the Swedish and Danish programmes came into being in 2013 and 2015, respectively.[1] In Norway, the Teach First Norway (TFN) programme was initiated during a period marked by strong criticisms of the teacher education provision. One of the factors that intensified the debate about the quality of schools and teacher education in Norway is related to the nation's below average performances in the Programme for International Student Assessment (PISA) surveys from 2001 onwards (for further discussion about the Nordic countries' transnational policy collaborations, see Chap. 14 in this book). In Scandinavia, the TFAll programmes are small in scope but are thus part of a larger international discourse related to the quality development of schools and teacher education.

In Norway, 148 graduates have completed or are enrolled in the programme. In Sweden, the number is 330, while Denmark has 250 graduates (Teach First DK, 2021; Teach for Sweden, 2021). Not surprisingly, many of the participants do not remain as teachers in schools after completion of the TFAll programme. In Norway, the educational authorities report that 55% of the candidates continue to work in the education sector after their 2-year commitment. This includes not only those who continue to work as teachers in schools but also those in leadership positions in the sector and those who have transferred to PhD positions (www.Teach First Norway.no).

In this chapter, I take a closer look at the career motivations and professional development of participants in the TFN programme. I find the topic highly relevant because educational programmes such as TFN (and Teach for Sweden and Teach First Denmark) recruit young professionals with multiple career opportunities and provide them with professional experiences that could give rise to new career values and beliefs. Although I use TFN and the Norwegian context as an example, I believe the analysis will apply to the Swedish and Danish contexts as well.

Contemporary career choices can be understood as fluid and negotiable (Mayrhofer et al., 2011), which has implications for the design of programmes aiming to effectively recruit highly competent professionals for long-term careers as teachers. Traditionally, research on motivation for choosing the teaching profession is based on an assumption that people will be committed to teaching as a long-term career. This might be a decreasingly relevant analysis as many people seem to consider, and possibly pursue, a range of career possibilities. In this chapter, I will examine how candidates in the TFN programme think about careers and professional development. The following research questions is explored: *How can we understand the career motivations and development of professional identity among TFAll participants?*

[1] The Teach First Norway programme is not currently a member of the TFAll umbrella organisation.

13.2 Conceptual Background

Conceptually, this chapter rests on theoretical and empirical insights from several areas. The first, and overarching, discourse relates to studies investigating changing career values. Among young professionals, there is an assumption that they will change their careers several times during their work life. Changes in the nature of work and employment practices and a labour market with a high level of requests for knowledge workers have ensured that young professionals have different career options compared to previous generations (Mayrhofer et al., 2011). Also, people may find that their work motivations extend beyond the bounds of a single profession and thus engage in multiple professional roles to fulfil those motivations. Due to the changes in how young people relate to career choices and career commitment, a greater emphasis is put on self-expression and self-development (Inglehart & Welzel, 2005; Maccoby, 1988; Mayrhofer et al., 2011). In turn, changes tend to occur in the relationship between professionals and their employers. The notions of long-term employment and job security have weakened, whereas job mobility (Mayrhofer et al., 2011) and instability (Ingersoll et al., 2014) have increased. This also implies that in contemporary society, the array of professional identities is widened, and more frequent identity changes occur across people's professional lives (Albert et al., 2000). A number of individuals find themselves transitioning from one profession to another at some point in their career (Caza & Creary, 2016; Ibarra, 1999, 2005; Ibarra & Petriglieri, 2010), and people might explore a variety of career options (e.g. as an engineer, a teacher or a leader) without necessarily wishing to embrace any of these on a permanent basis. TFN provides participants with a unique and diverse set of competencies (e.g. teaching and leadership skills) to choose from when designing their career trajectories, either as teachers or in other vocations; that is, they are provided with multiple career opportunities. TFAll thus provides an arena where participants can purposefully explore two kinds of competencies – teaching in schools and developing leadership skills.

A second relevant discourse relates to individuals' motivations for choosing teaching as a profession. Reviews of the field (Brookhart & Freeman, 1992; Richardson & Watt, 2014) have suggested that people are attracted to teaching for different reasons. In particular, the following three main reasons have emerged as influencing teachers' professional motivation: altruistic values, such as a desire to work with children and shape future generations; intrinsic values, such as the enjoyment of teaching itself, a desire for a challenge or a need for self-development; and extrinsic values, such as salary, job security, working hours and vacation time (Kyriacou & Coulthard, 2000; Roness & Smith, 2010; Richardson & Watt, 2014).

However, student teachers have different perspectives on their teaching careers. Watt and Richardson (2008) found that a group of teacher graduates from traditional teacher education (27%), which they termed 'highly engaged switchers', chose to

pursue teaching for the experience and competence and not because they planned a long-term career in teaching. Similarly, Smethem (2007) found that some teachers saw teaching only as a stepping stone in their career paths and thus introduced the notion 'portfolio teachers' to describe this group. Roness and Smith (2010) found that 24% of teacher candidates in their study reported ambivalence towards teaching as a career and reported to have chosen teacher education to obtain a variety of options in the job market. In studies examining career motivation among participants in alternative teacher education programmes, altruistic motivation (i.e. wanting to give back to society) is common (Gottfried & Straubhaar, 2015; Straubhaar & Gottfried, 2016). However, the most striking feature of these findings is that participants do not have a long-term perspective on teaching even though they might enjoy being a teacher. Rather, they use the teaching experience as a part of their future career development (Gottfried & Straubhaar, 2015; Heineke et al., 2014; Nesje et al., 2018b; Straubhaar & Gottfried, 2016).

A third discourse relates to individuals' professional identity development.

In this chapter, I explore how TFN participants experienced and evaluated teaching as a profession and, furthermore, how their experiences and evaluations may have had an impact on their professional identities. I use the idea of identity play as the foundational concept that provides a basis to investigate specific aspects of the professional identity development process (Ibarra & Petriglieri, 2010). In identity play, people explore professional possibilities through experimenting with possible selves, that is, self-knowledge concerning how individuals think about their potential and their future (Markus & Nurius, 1986; Oyserman & James, 2011) rather than adapting to an initially desired professional identity. Through the process of identity play, individuals' possible selves might be shaped and elaborated and may also be changed when faced with school realities. For TFN (and other TFALL) participants, it could be particularly relevant to view their professional trajectories as exploratory and non-linear as they may or may not maintain the teaching profession as a career endpoint. Accordingly, the chapter is concerned with individuals' exploration of a possible teacher self, which may or may not be pursued further in their professional life.

In a broad sense, choosing an occupation is usually (although not exclusively) based on the values and beliefs attached to the choice – that is, the degree to which a person will experience the work as rewarding or feel a sense of belonging (Brophy, 2009). At the same time, values and beliefs constitute important parts in both the construct of motivation and the construct of professional identity. In this sense, career choices can be regarded as identity-relevant decisions (Brophy, 2009; Eccles, 2009; Kaplan & Flum, 2009). This is most emphasised in Watson (2006): Who we perceive ourselves to be motivates what we do. Against the backdrop of a trend towards an increased focus on individualisation and self-development, professional identity development becomes an important issue.

13.3 Research Context

Norway is a small country with a population slightly exceeding five million. It has become one of the world's richest due to its natural resources, particularly oil and gas. The education system is mainly public, with 96% of children and youth attending public primary and lower-secondary schools and the remaining 4% in private schools. Equity is a key principle of the system. Education, including higher education, is free and available to all. The system offers 10 years of compulsory primary and lower secondary education (pupils aged 6–15 years) and an additional 3 years of optional upper secondary education (pupils aged 16–18 years). In compulsory education (grades 1–10), the same curriculum is used in all schools (see also Chap. 5 in this book).

TFN came into being in 2010 through a collaboration involving the municipality of Oslo's educational authorities, the University of Oslo and Equinor (an oil and gas company: 'the world's largest offshore operator'). Equinor characterises its support for TFN as corporate social responsibility contributing to the development of science, technology, engineering and mathematics (STEM) education in Norway. Equinor's interest in TFN also reflects its aim of recruiting high-skilled workers. As with other TFAll programmes, TFN is framed within the concept of a mission, which in Norway involves improving science education by turning skilled science graduates into effective teachers and leaders. TFN recruits high-achieving graduates from STEM programmes, a focus that distinguishes it from other TFAll programmes. It collaborates with Teach First in England (TFUK) and sends its graduates to a five-week summer institute in the UK. TFN is a small programme that to date has graduated about 148 candidates (www.teachfirstnorway.no) with diverse motivations for participating (Nesje, 2016). Candidates in TFN are selected through a process comprising motivational interviews, tests (including personality and IQ tests) and assignments (ethical and cooperative). High academic performance is a prerequisite. The candidates begin teaching with full responsibilities at the start of the school year. While teaching, they attend formal, university-based teacher-education (part time) courses organised by the educational authorities and leadership training from Equinor.

Organisations participating in the TFAll network, which was established in 2007 by the founders of TFA and TFUK, share a common mission to improve education and to fight social inequity (www.teachforall.org; Rauschenberger, 2021). Lately, the number of TFAll programmes has increased significantly, with new programmes being established in Europe (e.g. Sweden and Denmark), South America, the Asia-Pacific region and the Middle East. Currently, the network has 59 member countries[2] (http://teachforall.org/en).

Marketing for the programme has heavily emphasised leadership development (www.teachfirstnorway.no). As a teacher education and leadership development programme, TFN combines the development of practical teaching skills with

[2] Teach First Norway (TFN) is not currently a member of the TFAll network.

management training, internship opportunities and mentoring (www.teachfirst-norway.no).

By requiring a 2-year commitment and continuous professional development, TFN tries to ensure that around half of the candidates will remain teachers after completing their training (www.teachfirstnorway.no). By 2018, 55% of the TFN candidates worked in the education sector, however, many of these were in leadership or PhD positions (www.teachfirstnorway.no).

13.4 Sample and Methods

The research design that I adopted in this study focused on individual TFN teachers and used a multi-method approach to examine their experiences as participants in an alternative and largely employment-based route into teaching. I chose the individual TFN participant as my unit of analysis because of my focus on career motivations and professional identity development among the teachers.

Aiming for an investigation into participants' initial motivations for entering the TFN programme and the development of their professional identities throughout the programme, I invited one cohort of candidates to participate in my research project. The TFN cohorts are small, and this sample consists of 13 participants. Of these, six participants were subjected to an analysis of their professional identity development. These six participants constitute a sub-sample of the cohort, obtained through a nested sampling technique (Johnson & Christensen, 2019). The six TFN candidates were selected based on their motivational profiles identified in the first phase of the study (see Nesje, 2016) and were subsequently followed during their 2-year programme commitment (see Nesje et al., 2018b). The participants ranged in age from 24 to 31, with a mean age of 26.3 years. The participants holds master's degrees in biology, chemistry, engineering, mathematics, nanoscience, physics and feed science (Table 13.1).

Table 13.1 Participants' demographics (N = 6)

Participant (pseudonym)	Gender	Age (start-up)	Teaching experience before entering TFN	Education
Theodore	Male	28	6 months in lower secondary school	Science
Simon	Male	29	One and a half years in upper secondary school	Engineering
Peter	Male	24	–	Engineering
Jenny	Female	26	–	Science
Adrian	Male	26	–	Engineering
Chris	Male	26	–	Mathematics

13.5 Data Sources

The data were collected through an instrument measuring the participants' motivations for teaching (the FIT-Choice scale, Watt & Richardson, 2008; see below), qualitative interviews and reflection notes. The measurement sample consisted of the 13 participants (three female) who constituted one cohort of TFN students. The participants' motivations for teaching were measured using the Factors Influencing Teaching (FIT) Choice scale (Watt & Richardson, 2008).[3] Based on the results from the FIT-Choice scale, the participants' motivational profiles were extracted (for additional information, see Nesje, 2016). The participants' responses on the FIT-Choice scale were treated individually as test scores involving a norm-referenced measurement approach with inter-individual comparison (Sattler, 2001). Z-scores were calculated based on the participants' responses on the FIT-Choice scale and the mean scores and standard deviations from a norm group of 635 Norwegian student teachers. The z-scores thus provide information on how the participants' scores are positioned compared with the large norm group (the norm group and results are presented elsewhere; see Nesje et al., 2018a). From these motivational profiles, six participants were selected to be interviewed when they started TFN and at the end of the programme. I used a semi-structured interview protocol with questions relating to the participants' experiences with teaching, their perceptions of the TFN programme and their career plans. The average length of the interviews were 85 min. All interviews were recorded and fully transcribed. In addition, when the participants were halfway through the TFN programme, they wrote a reflection note based upon questions similar to those in the interviews.

The texts resulting from the transcriptions were coded (using NVivo 10 data analysis software), and a thematic analysis (Braun & Clarke, 2006) was applied to the participants' statements and reflection notes.

13.6 Core Findings

This section presents the key findings of the study (for additional results, see Nesje, 2016; Nesje et al., 2018a, b), which had the following research question: How can we understand the career motivations and development of professional identity among TFAll participants?

[3] For information about the validation of the Norwegian version of the FIT-Choice scale, see Nesje et al. (2018a).

13.6.1 Motivation for Joining TFN

In the analysis of the participants' responses on the FIT-Choice scale, I found the following three motivational profiles (see Nesje, 2016): *altruistic motivation predominant (profile 1), interest in teaching (profile 2)* and *low altruistic motivation (profile 3)*. These profiles were elaborated by the participants' interviews. The interview data revealed that the TFN candidates' motivations for teaching and attending the programme were complex and unique to the three profiles. From the perspective of this particular cohort, TFN has recruited participants with different motivations for the teaching profession. The involvement of the business industry (Equinor) in the TFN partnership attracted some of the participants who considered their participation in TFN as a part of their overall building of competence and not primarily based on motivations to teach (low altruistic motivation). One of the participants from the low altruistic motivation profile stated the following:

> I don't actually think I am going to become a teacher. I am not driven by strong motivations for the teaching profession. I've chosen the programme for more selfish reasons. I have an attractive science education. I would really like to become a manager in an industrial context. So, I will probably be searching for a new job in about a year. It is important for me to have a job that involves personal challenges. And I can always turn back to teaching.

The participants in the low altruistic motivation profile emphasised the importance of being professionally challenged, and the TFN programme was perceived as an opportunity to learn and build competence for use in work areas other than schools. Another participant from this profile stated:

> Since I started studying, I have been very much aware that I will build leadership skills. And Teach First seems like a different way of doing it. For me it was a 'kill two birds with one stone' situation. So when I apply for jobs in about a year, I am going to apply for jobs that take my leadership career one step further. I will not go into a typical engineering job like several of my friends are doing now. For me, the professional competence as a teacher is not important. I want the leadership competence.

For the respondents in this profile, TFN is primarily perceived as a good place to develop leadership skills. Teacher education and the work as a teacher seem to be subordinate for this group of participants.

The participants grouped in the two other motivational profiles displayed more adaptive motivations to teach, underscoring that their TFN participation was based on an interest in and enjoyment of teaching (high interest in teaching) or that they were committed to giving back to society and helping future generations (altruistic motivation predominant). The participants from the high interest in teaching profile expressed an interest in the subject matter being taught, and becoming a teacher was an option for several of the participants even before they were familiar with TFN.

> The actual teaching situation is interesting. Perhaps it has something to do with the power and influence, what the pupils learn and how they learn. Not to say I am forcing my own opinions on them. But I like being able to tell them things. If we read things in the newspaper, for example, and then being able to explain about science subjects, tell them why what the journalist writes is wrong, as is often the case, and to make them aware that everything is natural science! Disseminating this knowledge and observing how the pupils respond is very fun.

Several of the participants emphasised the enjoyment related to teaching and their relations to their pupils.

> Being in the classroom makes me wake up. I get a little excited. In my old job, I often felt I didn't contribute anything. I didn't see the results of the job I did. That is hardly rewarding. But in the classroom, it is different. I get a lot in return from the students. And that is motivating.

The participants in this profile were also initially motivated to join TFN because of a need for challenges, which they believed TFN could offer them. Although some of the participants in this group had not considered teaching as a career option before entering the programme, they underscored that the TFN experience had exposed them to new career options.

The participants in the profile labelled altruistic motivation predominant displayed a high interest in teaching combined with high scores on altruistic motivations. Research has shown that altruistic motivation is an important motivation for teachers (Jungert et al., 2014; Pop & Turner, 2009). One of the participants stated the following:

> I think I have the abilities of a good teacher. A good teacher is one who is interested in youth and who is interested in getting young people to perform their best and wish them well. One has to be interested in pursuing social inclusion. One must have a desire to achieve something together with others. One thing that I find really cool about the Teach First programme is that we have to work in a multicultural school. Get to meet people from all over the world, see if we can work towards the same goal. You have to find some pleasure in helping others if you are working as a teacher. One must be altruistic, quite simply.

Interestingly, however, participants in this profile talked about teaching as a fallback career opportunity. Teaching was perceived as a short-term commitment, and as with participants in the first profile (low altruistic motivation), TFN was viewed as a provisional period allowing participants to plan their future, learn about teaching and achieve competence applicable in other work areas.

13.6.2 Professional Identity Development

In the examination of the participants' professional identity development, the motivational profiles presented above were used as a starting point. Two participants from each profile were included in this second part of the study. The participants' motivational profiles constitute representations of their possible teacher selves and thus are the raw materials of their identity play as they explore the teaching profession. Table 13.2 gives an overview of the themes emerging from the participants' interviews and reflection notes.

As already mentioned, the participants offered different reasons for participation in TFN. In the first round of interviews, two of the six candidates expressed a clear intent to become a teacher, while the remaining four were more open to other career options. The time-limited and non-binding aspects of the TFN programme was

Table 13.2 Overview of themes in the participants' narratives

Participants (profile)	Initial ideas about teaching	Identity play themes	Outcome: choice of staying or leaving
Theodore (1)	Altruistic values, caring	Positive feedback on teacher self Ambivalence Enjoys teaching but fears being a teacher	Theodore still works as a teacher
Simon (1)	Altruistic values, caring	Ambivalence Feelings of stagnation Relational aspects Self-development	Simon still works as a teacher but has changed schools
Jenny (2)	Classroom management, relationships with pupils	Contextual and structural constraints make her question teaching Positive feedback from students on teacher self	Jenny still works as a teacher but is searching for a new job, either outside school or in a different school
Peter (2)	Classroom management, relationships with pupils	Contextual and structural constraints make him question teaching Positive feedback on teacher self	Peter works as a consultant; teaching is a future possibility
Adrian (3)	Subject teaching, knowledge expert	Exhaustion, stress Disappointment Mismatch between teacher self and experiences in the classroom Developing his leader self New possible selves through TFN	Adrian works in the business industry. Teaching is a distant future possibility
Chris (3)	Subject teaching, knowledge expert	Exhaustion, stress Disappointment Mismatch between teacher self and experiences in the classroom	Chris works in the business industry Teaching is not a future possibility

underscored in several of the interviews as an important reason to attend. One participant, Theodore, explained:

> I like that TF is project-based and limited to two years. What it means is that I do not have to decide to become a teacher. I'm having trouble with committing myself for a long time. In whatever job I take, including in industry, I would have trouble saying that I will be here for very long. I think of TF as a way to explore a job that I consider interesting.

As shown in Table 13.2, the participants' exploration of their teacher selves meant that they encountered the classroom, their pupils and the school in different ways. The participants' thoughts and feelings are evoked and act as conditions in which the process of professional identity development takes place.

The participants' conceptions about teaching differed considerably when entering the TF programme. The two candidates from the altruistic motivation predominant profile conveyed that teaching was primarily about caring and helping adolescents in their learning and development. The two participants from the high interest in teaching profile displayed considerable reflection on classroom management and relations with pupils as key elements in teaching. In their conceptions of teaching, they also highlighted correctness and ethics as key characteristics of teaching. Peter stated that

> Being able to stand in front and being a leader is not always easy. It is, however, very important because being a teacher is being a leader. A bad teacher will be a bad leader. Classroom management is much more important than subject knowledge. Subject knowledge is not the problem. It is classroom management that is important. No one can learn anything if you don't have classroom management.

The two participants from the low altruistic motivation profile strongly anchored their understanding of themselves as teachers in their subject knowledge. At the beginning of the TFN programme, they conveyed a strong belief in their own academic abilities. When talking about their conceptions of teaching, they emphasised subject knowledge and the dissemination of knowledge as the most salient elements and that the most important part of a teacher's job is ensuring that pupils learn as much as possible.

After 1 year in the TFN programme, the participants in the low altruistic motivation profile described their experiences as teachers in more negative terms than at the start, 1 year earlier. Their conceptions of teaching matched the realities of their classrooms only to a limited extent. One of the participants was disappointed by the behaviour of his students, who seemed to him uninterested and disrespectful. Adrian explained:

> I think dissemination of knowledge is fun. Unfortunately, it's only a small part of a teacher's job in lower secondary school. I perceive my role more like an overqualified kindergarten teacher than a knowledgeable person sharing his expertise.

After 1 year in the programme, one of the participants from the altruistic motivation predominant profile expressed how he had received positive feedback on how he carried out his work as a teacher and his teacher identity. Theodore stated the following:

> I see that there is a need for me in school, and I feel that the work I do is extremely meaningful. It is important for me to do something I find valuable. That I have the opportunity to forge strong relational ties in my professional life and that I can contribute to developing something or someone.

The other participant from this profile faced considerable challenges in her work as a teacher. After 1 year in teaching, she expressed that the work pressure and the social context in which she functioned in school resulted in low motivation for remaining a teacher. Strong themes of her narrative were disappointment and loneliness. She felt she had little connection with her colleagues and little support from her supervisors.

At the end of TFN, the participants' different trajectories of professional identity exploration became even more apparent than in the reflection notes or the first interviews. While some participants continued the construction of a professional identity suited to the realities of teaching and the larger school system, other participants discarded their professional identity as a teacher as they searched for other career options. Although some of the participants' development had continued positively during the second year, the majority of participants were planning to pursue career aspirations other than staying in teaching. One of the participants explained his future feared possible self as a teacher:

> What scares me is to stand there as a 50-year-old teacher. I very much enjoy what I do now, but I hope that I one day will get tired of it all and get a desire to do something else.

This fear of what one would become in the future was emphasised by other themes that emerged during the interviews. The lack of career progression in teaching was mentioned by several of the participants as a drawback as were feelings of academic stagnation, the prospect of low wage growth and constraints related to teachers' working hours and general working conditions. Peter explains:

> I'm going to work as a teacher again sometime in the future. I have great motivation to work with people and to develop myself as a leader and expert. I have not been scared away from the profession, but I am looking with horror at the developments around working agreements and working hours in schools. The actual work, however, gives me great pleasure.

Summarising the participants' narratives, the findings show that in addition to a teacher self, other salient possible professional selves exist, making the non-binding TFN programme a convenient place to be for a limited time. The findings also show that some motivations for and beliefs and perceptions about teaching provide a better match with the realities of classrooms than others. Furthermore, the findings show that the identity play within TFN offered opportunities for new possible selves to emerge during the course of the programme. Based on the reality check of the participants' experience in the schools, possible selves might be integrated as a part of a professional identity, they might be rejected or changed or new insights regarding one's teacher identity might emerge from the experience.

13.7 Discussion

This chapter has explored the introduction of Teach First/TFAll in Scandinavia based on empirical evidence from the Norwegian context. As a point of departure, the chapter describes some features of contemporary work life and young professionals' values and beliefs related to work, embracing self-development and self-realisation (Beck & Beck-Gernsheim, 2002; Maccoby, 1988). Higher education offers qualifications leading to individualised career opportunities (Beck & Beck-Gernsheim, 2002). Some people even engage in several educational programmes or courses, providing themselves with several credentials and multiple career opportunities. The participants in Teach First/TFAll programmes represent this growing group of professionals (Baethge, 1992; Mayrhofer et al., 2011).

The findings presented in this chapter provide insights into the beginning teacher identities of participants in the TFN programme. Although the participants displayed adaptive motivation for teaching and perceived the work as meaningful and interesting, teaching was not a salient part of their career planning. The findings rather suggest that their motivations for joining TFN and the teaching profession promoted a superficial and short-term engagement in the profession (Fokkens-Bruinsma & Canrinus, 2012; Jungert et al., 2014; Nesje, 2016).

TFAll is perceived and marketed as a fast-track opportunity to recruit the highest-achieving graduates to teach in schools. Such recruitment is greatly needed as some prognoses indicate inadequate coverage of future teacher needs in Norway and Sweden. Denmark anticipates inadequate coverage until the year 2022 although a sufficient supply of teachers is anticipated further into the 2020s. The current and future supply of teachers can also partly be viewed in the context of many teachers leaving the teaching profession, thus creating a need for extraordinary recruitment. However, from a recruitment perspective, which aims to ensure that more teachers stay in the profession, the TFAll model proves to be unsatisfactory. The findings presented in this chapter show that the motivation for participating in the programme is complex. The programme is perceived by many as an opportunity for self-development and building a resume. The participants from the low altruistic motivation profile expressed less interest in teaching and less emphasis on altruistic motivations, thus expressing maladaptive teaching motivations, as specified by Fokkens-Bruinsma and Canrinus (2012). Maladaptive motivations, which are associated with a loss of commitment to and engagement in teaching, are important indications of a misfit between the individual and the choice of profession, making insights into participants' motivations important for the TFN partnership in order to be able to facilitate and support the TFN participants' experiences during the programme.

The TFN participants may have entered the programme with an exploratory attitude towards being a teacher. Self-development was an important underlying value relating to this group's professional identity (Maccoby, 1988; Mayrhofer et al., 2011). Participation in TFAll programmes might be viewed as a part of a self-development project in which the candidates are given the opportunity to 'try on teaching for fit' (Nesje et al., 2018b). The majority of TFN participants included in this study have long-term career objectives other than being a teacher, and these participants justify their participation in the programme with developing competencies applicable to a range of working contexts. Teaching skills are appreciated in many areas of work life, and the relational competence offered by teacher education is valuable in most work contexts, whether working in leadership positions, such as a project manager, or simply in order to be a good colleague. Thus, if the TFN participants' attempts at self-realisation were hampered, such as by negative classroom experiences, a limiting system or organisational obstacles, they moved on to other work contexts in the hope of finding better conditions for self-development.

Among young people, there is an embedded assumption that they will change their career several times throughout their lives (cf. Mayrhofer et al., 2011). This expectation can provide an incentive to acquire competencies that are applicable in

several work areas, and, as mentioned above, teaching skills represent precisely such a competence. When participants in this study explored the teaching profession through TFN, they perceived different experiences as salient and as important push-and-pull factors contributing to their professional development. These different ways of exploring the teaching profession were related to their initial motivations and possible teacher selves when they entered TFN and teaching. Self-realisation and self-development seemed to be an important underlying aspect of this group's professional identity. The study shows that identity play (Ibarra & Petriglieri, 2010), proposed as the process by which possible selves are tested against experience, can be a fruitful analytical concept for understanding professional identity development in contemporary work situations.

13.8 Concluding Remarks

Higher education systems both in the Scandinavian countries and internationally have been subject to profound reform pressures in recent years. The universities' external environment has increased in complexity. At the same time, researchers argue that the European space for higher education is increasingly being homogenised through the Bologna process and through innovations such as the TFAll network, leading national systems to adopt common international models (Crawford-Garrett et al., 2021; Olmedo et al., 2013; see this chapter in this book for a discussion on the impact of the Bologna process on the governing of Teacher education in the Nordic region).

TFN is an alternative teacher education programme initiated outside the government's policy formulation but nonetheless welcomed in the Norwegian educational landscape. The programme joins a public discourse on solving society's problems within a network organisation (Olmedo et al., 2013). However, as shown in this chapter, TFAll is thus far a marginal phenomenon when it comes to the Scandinavian societal challenges of obtaining qualified teachers. TFAll is neither able to solve the challenges associated with attrition from the teaching profession nor the challenges related to the fact that about 15% of Norwegian teachers in primary school and about 21% of teachers in upper secondary school lack formal teaching qualifications (Ghosh, 2020). The situation is similar in Sweden, where a shortage of 45,000 qualified teachers is expected in 2033 (Skolverket, 2019).

The Scandinavian (and Nordic) higher education system has been described as successful in combining economic growth with social protection, inclusion and equality (Christensen et al., 2014). Thus, an interesting question pertains to how the general altruistic mission of TFAll – to make a difference – is redefined in the Scandinavian context. In Norway, TFN is framed as a remedy in the work on the so-called science subject crisis and thus in the recruitment of capable science and mathematics teachers. As a key partner in the TFN collaboration, the energy company Equinor demonstrates social responsibility by participating in the partnership and financing parts of the TFN programme. However, Equinor's motives for

participation are also related to recruiting the best candidates for future employment (Nesje, 2020). As shown in this chapter, TFN is a small programme with few openings (between 13 and 20 students each year). The chapter demonstrates that the programme recruits participants with different motivations for participation, many of whom are motivated to acquire competencies for use in a wider context than solely teaching. Thus, from a recruitment perspective, the Teach First model appears unsatisfactory. The participants' experiences within the programme and working as teachers were perceived as a form of identity play while trying out possible selves as a teacher and a leader.

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Chapter 14
Teacher Education in the Nordic Remake: How Transnational Policymaking Transforms Regional Collaboration

John Benedicto Krejsler

Abstract Since the 1990s, teacher education policies and programmes in Nordic countries have been increasingly shaped by their profound involvement in international and transnational collaborations. Today, the OECD's PISA and the IEA's Progress in Reading Literacy Study (PIRLS) and Trends in Mathematics and Science Study (TIMSS) define how European national school policy is talked about and organized, and the Bologna Process has become pivotal for how teacher education is thought about and organized. Thus, Nordic collaboration has largely been transformed in the sense that Nordic countries gain perspective in transnational collaborations by comparing their performances with those of other Nordic countries and adapting the agendas for Nordic collaborations to larger international and transnational agendas.

This chapter demonstrates how teacher education in the Nordic countries has been reshaped by these developments in three key areas: (1) the impact of the transnational turn in education policy, in particular the Bologna Process; (2) how this turn has been driven by increasing primacy of Anglo-American educational norms (evidence, standards-based education, coupling the market with education, etc.); and (3) the impact of the transnational turn in school policy reform on the framing of teacher education in both discourse and practice.

14.1 Introduction: The Transnational Turn in Nordic Collaboration on Education

Since the 1990s, teacher education policy and programs in the Nordic countries have been increasingly shaped by their profound involvement in international and transnational collaborations. This represents the expansion of an established tradition among the Nordic open societies and economies of being very active in

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international collaborations in most policy areas (Andersen et al., 2007). The genealogy of teacher education in Nordic countries has thus to a large extent become a narrative about commitments to voluntary but nonetheless compelling reform initiatives emanating from overarching European education policy formats. These formats were negotiated mainly within the institutional frameworks of the OECD (the Organization for Economic Cooperation and Development), the European Union (EU), and the Bologna process, whose objective is to create a European Higher Education Area. Additionally, the IEA (the International Association for the Evaluation of Educational Achievement) has acquired considerable agenda-setting influence through its international surveys of student achievement in literacy, numeracy, science, and other areas (Hopmann, 2008; Krejsler & Moos, 2023 (in press)); Lawn & Grek, 2012; Nóvoa & Lawn, 2002; Rizvi & Lingard, 2010). As school and education rose up the international agendas in parallel with the human capital and global knowledge economy discourses, these transnational consensus-building policymaking hubs have emerged as the sites where visions, standards, and ideas of best practice for school and education reform are developed and disseminated. This applies to the Nordic countries as well (Blossing et al., 2016; Hultqvist et al., 2018; Krejsler & Moos, 2021b; Krejsler et al., 2014, 2018; Moos, 2013; Tröhler et al., 2022).

The European education policy dimension was a late addition to post-World War II efforts to rebuild a war-torn Europe by means of transatlantic collaboration centering on economic development and growth. From the 1960s onwards, these efforts were gradually transformed in ways that catapulted education higher up the transnational policy agenda. The result was to produce the imaginaries that became the school and education regimes we take for granted today (Krejsler, 2020; Meyer & Benavot, 2013; Ydesen, 2019). Today, the OECD's PISA surveys (Program for International Student Assessment) and the IEA's PIRLS (Progress in Reading Literacy Study) and TIMSS (Trends in mathematics and Science Study) surveys have become defining for formatting how we talk about and organize European national school policy, as the Bologna process has become defining for how we think about and organize teacher education. Transnational regimes of comparability emerged. Nation-state school and teacher education discourse and systems are obliged to comply, if they do not wish to exclude themselves from mainstream policy agendas. This regime of comparability has, however, increasingly subjected school and education to generalized fears of falling behind other nations in public and policy imaginaries.

Given that all the Nordic countries participate in these education policy collaborations – albeit following different trajectories – one result has been to reconfigure the patterns of Nordic collaboration. Thus, Nordic collaboration has largely resurfaced in the sense that Nordic countries get perspective on their performance in transnational collaborations by comparing their performance with the other Nordic countries and by adapting the agendas for Nordic collaboration to larger international and transnational agendas (Blossing et al., 2016; Elstad, 2020; Krejsler & Moos, 2021b).

This chapter demonstrates how teacher education in the Nordic countries has been reshaped by these developments, in three key areas. The first of these is the impact of the transnational turn in education policy and in particular the Bologna process. The second is how this turn has been accompanied and driven by increasing primacy of Anglo-American educational ideas about the production of so-called knowledge that works (evidence, standards-based education, coupling of the market with education, etc.). The third area is the impact of the transnational turn in school policy reform on the framing of teacher education in discourse and in practice.

14.2 Teacher Education, the Bologna Process, and the European Union

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 (Braad et al., 2005; Elstad, 2020; Skagen, 2006). Finland was the front-runner on this path in the late 1970s, making teacher education a 5-year master's-level degree. Norway and Iceland, aligning with the consensus brokered in transnational collaborations since the 1990s, followed suit after the Finnish model; Sweden followed a similar but more hybrid model. Only Denmark, with its hybrid 4-year professional bachelor's teacher education program, seems left somewhat behind. Since the turn of the millennium, these transformation processes have been explicitly shaped by the launch and further expansion of the Bologna process and its project of creating a common European Higher Education Area (EHEA). The Bologna process's ever-increasing interweaving with the education priorities of the European Union has given it additional momentum. The OECD intensified and focused this development by joining in with its influential standards, statistics, and surveys along similar discourse and key concepts. Like the Bologna process and the EU, it has framed education in terms of 'lifelong learning,' 'twenty-first century knowledge, skills and competences,' 'employability,' and 'evidence in education' (Krejsler, 2018; Lawn & Grek, 2012).

14.2.1 How Teacher Education Turned Transnational: A Brief Genealogy

The Bologna process was established in 2000 as a comprehensive European process that would eventually include 48 countries. The process solemnly pledged to establish a European Higher Education Area (EHEA) by 2010 (Keeling, 2006). It was to cover higher education (including teacher education), and the aim was to make European higher education systems comparable by establishing common standards

that would enable student and teacher mobility across borders and different education systems. Formally, and abiding by the dominant discourses of democracy, freedom, and diversity, the Bologna process claimed to be completely voluntary. By 2009, however, it had grown to become a formidable discursive giant, administering a set of political technologies that were increasingly compelling. This included ten performance indicators and a score-card system ranking the compliance of participating countries: included were the European Credit Transfer System (ECTS), mutual recognition of diplomas, a bachelor's/master's/PhD format (3 + 2 + 3), and quality assurance formats in the field of higher education (including teacher education) across borders, and so forth (Brøgger, 2018; Krejsler, 2018).

The Bologna process was originally an initiative formulated by the ministers of education from Britain, Germany, France, and Italy in the Sorbonne Declaration of 1998, formalized in the Bologna Declaration of 1999 by 29 countries and launched in 2000. It was conceived of as a larger European collaboration, explicitly excluding the European Commission. Nonetheless, as the European Commission has by far the most comprehensive institutional capacity for European collaboration, it has increasingly become the leading force in the Bologna process in terms of administrative oversight and coordination.

For the European Union, education was originally an area where individual national sovereignty ruled, according to the principle of subsidiarity. It was not until the Maastricht treaty of 1992 that a breakthrough in the form of a particular discursive maneuver – in addition to affirmation of the principle of subsidiarity – gave the EU commission a coordinating role between national governments on education policy issues, especially those issues that were deemed key in supporting economic growth in the form of qualifying labor and similar issues (EC, 1992). The link between education and economic concerns opened the door to making education a transnational concern. The Maastricht treaty was thus a predecessor to the game-changing EU Lisbon Declaration of 2000, which extols a discourse to make Europe by 2010 "the most competitive and dynamic knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion" (EC, 2000). The solemn inauguration of this declaration was followed up by the Lisbon Agenda, defining EU policy guidelines and portfolios which, among other key issues, imposed a tighter focus on the importance of education for ensuring economic growth (Colignon et al., 2005; EC, 2000, 2010; Lawn & Lingard, 2002). Hereafter, 'competences,' 'lifelong learning,' and 'employability' became dominant discursive signifiers which came to permeate national strategies for successful economies all the way down to reformed descriptions of education courses at all levels. With the turn of the millennium, the European Commission thus became in collaboration with the OECD and the Bologna process, the key discursive operator in the merging of policy discourse about economic growth and education by means of knowledge economy, human capital, and lifelong learning discourse (Hultqvist et al., 2018; Lawn & Grek, 2012; Nóvoa & Lawn, 2002).

Since then, the Bologna process and the European Union have increasingly integrated their efforts to 'optimize' education in what is called a lifelong learning perspective (Keeling, 2006). As the EU developed its European Qualification

Framework (EQF), later duplicated in all member nation-states into National Qualification Frameworks (NQF), lifelong learning from pre-K up to PhD was divided into eight levels, with the Bologna process bachelor's/master's/PhD cycles integrated as levels 6, 7, and 8 (EQF, 2008; Krejsler, 2018). Participating countries and their education systems – including teacher education – grew ever more comparable; knowledge, skills, and competences grew ever more transferable.

In order to understand how transnational collaborations in education became so influential as voluntary collaborations, it is necessary to briefly introduce the so-called Open Method of Coordination (OMC). OMC is the official method of collaboration of the EU and the Bologna Process, and makes the impossible possible in terms of working by procedures that ensure gradual consensus-building instead of making decisions by voting. The Bologna Process thus started out as a framework for voluntary collaboration. The gradual build-up of consensus has, nonetheless, produced a growing framework of standards and performance indicators that became increasingly compelling by the effects of comparability. When countries commit to making themselves comparable they simultaneously subject themselves to the 'soft powers' of peer pressure: You must comply with the agreed standards that comparisons demand, which subsequently make you susceptible to the motivating effects of 'naming and shaming' that follow from being more or less successful in complying with the standards that govern surveys, score-cards and other comparative technologies (Brøgger, 2018; Gornitzka, 2006; Krejsler, 2018: 187–190).

14.2.2 Impact Upon National Teacher Education in the Nordic Region

The colossal impact of the Bologna process on teacher education is visible in all Nordic countries, albeit along different trajectories due to differing national contexts and histories (Braad et al., 2005; Elstad, 2020). Finland made teacher education into a master's degree in 1979, well ahead of the Bologna process. Decades later – and under the pressure of the Bologna process – the Finnish experience became an inspiration for Iceland and Norway in particular. One might question, however, whether Finland would have become a role model if it had not been catapulted into a global model by the transnational surveys – PISA, TIMSS, and PIRLS. In 2008, Iceland followed suit by making its teacher education program into a master's degree. Since then, Iceland has backtracked to some degree and introduced fast-track variants, as getting sufficiently many students to write and pass the master's thesis was problematic. From 2017, Norwegian teacher education programs for primary and lower secondary school were also transformed into 5-year master's programs, offered at regional colleges and universities. Time will tell whether there will be similar consequences as those experienced in Iceland. In Denmark, however, which adhered for longer to a less academic, Grundtvigian-inspired seminary tradition, teacher education for primary and lower secondary

education remains a professional bachelor's degree. For higher secondary school, in Denmark and Norway student teachers have to take a master's degree at a university and a subsequent in-service postgraduate course in education, which in Norway also qualifies for teaching at the lower secondary school level. In Denmark, deliberations have been ongoing for some years about establishing a 5-year teacher education program at master's level, albeit with little success so far. Sweden is somewhat in between: in 1977 all teacher education programs were integrated into the legal framework of higher education, although degrees concerning pre-, primary and lower secondary school were still mostly placed at separate university colleges (högskolor). In recent years, university colleges are increasingly transformed into universities, and pre-school and primary school teacher degrees qualify as bachelor's degrees, whereas advanced lower secondary teacher degrees usually qualify as master's degrees, as degrees aimed at higher secondary level education usually do as well. In that sense, all the Nordic countries are increasingly adapted to the Bologna process standard, albeit according to differing models, where some teacher education courses qualify as bachelor degrees, although not necessarily 3 years courses, and others as 5 years master degrees (Elstad, 2020; Klette et al., 2002; Krejsler et al., 2018; Rasmussen & Bayer, 2014; Skagen, 2006).

Consequently, the transnational impact has gradually but thoroughly transformed and increasingly aligned Nordic national teacher education programs. The European Credit Transfer and Accumulation system (ECTS) has become the standard for measuring a teacher education program: 300 ECTS for 5 years' study are broken down into 60 ECTS for 1 year and, typically, 10 or 20 ECTS per module. The names may differ – ECTS in Denmark, 'högskolpoäng' in Sweden. The teacher education programs conclude with a diploma supplement, making them comparable to other Bologna signatory states' education programs. By making education programs, including teacher education programs, increasingly comparable and transferable across national borders, this transnational policy endeavor aims to make students and teachers more mobile across – it is hoped – increasingly competitive knowledge economies within the European region and beyond. Student teachers are increasingly encouraged to do part of their studies abroad, though the fact that Nordic national teacher education programs are still, and will probably remain, closely connected to the detailed particularities of national school policies to some extent represents a barrier.

14.2.3 How Quality Assurance Turned Transnational

The Bologna process also increased collaboration on quality assurance and formats for accreditation in higher education, including teacher education. In 2005 the signatory states agreed their first formulation of a comprehensive set of principles in 'Standards and Guidelines for Quality Assurance in the European Higher Education Area' (ESG), subsequently updated in 2012 and 2015 (ENQA, 2015). In this process the national Nordic quality assurance agencies have adapted their standards

and criteria to align with and obtain membership in ENQA (the European Association for Quality Assurance in Higher Education), which is formally placed within the Bologna framework (ENQA, 2015). This alignment ensures comparability and mutual inspiration among the signatory states, which includes all Nordic states. The ESG principles mainly deal with ensuring that national quality assurance in higher education draws on appropriate involvement of internal as well as external stakeholders in quality assurance procedures at individual educational institutions, and also to ensure that national agencies are in place that encourage development, implementation, and monitoring of quality assurance.

As an example, the Danish Evaluation Institute (EVA) was established as a government initiative in 1999 in the run-up to the launch of the Bologna process. EVA is the most influential Danish institution in the evaluation of initiatives covering daycare facilities, school, and higher education. It produces key reports and evaluations in school and teacher education which then receive government attention. EVA is an active member of ENQA, with a seat on the ENQA board. Additionally, EVA has gained admission to EQAR (the European Quality Assurance Register for Higher Education), the framework body that handles the accreditation of national quality assurance agencies according to their implementation of the ESG principles and criteria. One indication of ardent Danish commitment to ENQA is that Christian Thune, the previous director of EVA, was acting president of ENQA and co-author of the ESG in 2005. As an offshoot of Danish participation in ENQA, the Danish Accreditation Institution (AI) was established in 2007 to handle the accrediting of university education programs. From 2013, AI took over all accreditation of higher education from EVA, including education programs (including teacher education) located at university colleges (Akkrediteringsloven, 2013). This means that the reform of higher education, including teacher education, has been made dependent upon accreditation of individual education programs and institutions according to AI criteria that conform to ENQA criteria.

The Nordic countries generally rank among the very compliant Bologna process participants, with slight differences. Sweden nonetheless succeeded in being provisionally suspended from full ENQA membership in 2012 for not complying with ESG guidelines concerning sufficient external involvement in ensuring credible quality assurance. This happened when in 2010 the Swedish government introduced a new quality assurance system against the recommendations of the Swedish National Agency for Higher Education (from 2013 the Swedish Higher Education Authority). Subsequently, in 2012, an ENQA review asserted that the new Swedish system was at odds with ESG principles. The review thus questioned whether the national agency was sufficiently independent from political interference, which is considered a fundamental requirement for becoming a member of ENQA. Further, the review pointed to flaws in the Swedish system in that it largely disregarded the results of internal quality assurance carried out by the university departments themselves. In 2014 the Swedish Higher Education Authority lost its membership, and only regained it in 2020 after another review that ensured that a new quality assurance system was once again compliant with ESG (Krejsler et al., 2018; Samuelsson, 2020: 100–101).

The Swedish case clearly demonstrates how the Bologna process and the 'soft power' rationalities of the Open Method of Coordination operate by, in this case, putting pressure of exclusion on a member state in order to encourage it to take measures that would enable it to be (re)included in a desired transnational space. It shows how quality assurance in discourse and in organization is increasingly framed via transnational collaborations as conditions for national reform and debate about teacher education (Krejsler et al., 2014).

14.3 The Paradigm Shift Toward Anglo-American School Effectiveness and Evidence

Another consequence of transnational collaborations in education with significant impact on teacher education is that these collaborations are strongly dominated by Anglo-American networks, norms and educational thinking, which frame the standards, surveys, and conditions for comparability. This predominance is most visible in the paradigms of 'school effectiveness' and 'improvement', in the 'evidence' and 'what works' collaborations, as well as in 'human capital' and 'knowledge economy' discourse (Eryaman & Schneider, 2017; Krejsler, 2017, 2020). But as the education contexts and research traditions in the Nordic countries differ profoundly from Anglo-American contexts and traditions, this creates a number of problems for Nordic school and teacher education professionals and researchers. For example, Nordic school and teacher education traditions have drawn inspiration to a large extent from a continental, particularly German heritage with a strong emphasis on didactics and which saw the larger purpose of education in terms of a German-inspired Bildung tradition (Gundem & Hopmann, 1998; Hopmann, 2015; Uljens & Ylimaki, 2017). One should not forget, however, that American progressivism at one end and Tyler-inspired Anglo-American curricular thinking at the other have also contributed greatly to developing Nordic approaches to school thinking and policy (Moos, 2013; Popkewitz, 2005; Tyler, 1949/1971). This varies nonetheless from country to country, with Denmark being more influenced by German traditions and Sweden less so.

In terms of school policy and teacher education the Anglo-American impact is also increasingly institutionalized in the ongoing displacement of 'pedagogik' where ideas are often – but not exclusively – drawn from German and other continental sources, and the emerging discipline of educational science (*utbildningsvetenskap*) that increasingly draws on Anglo-American sources. In general terms, 'pedagogik' here refers to the academic and professional discipline whose genealogy reaches back to Comenius, Kant, Rousseau, Herbart, Dewey, and reform pedagogy. Educational science, however, is still a cross-disciplinary field in the making crisscrossed by many stakes being placed in between science, policy, market and professional practice interests. The gradual takeover of educational science as the privileged academic discipline in relation to teacher education can thus be seen

from different angles: Some mainly understand educational science as the study of education and education systems as a scientific field bringing together disciplines ranging from pedagogy over sociology and psychology to political science. Others, closer to teacher education, focus upon pedagogy, didactics/curriculum, educational work and so forth. Still others, closer to policy, focus on bringing education closer to market and employability needs in knowledge economies for which a primary guiding incentive is optimizing a nation's human capital. At times the struggle about the identity of educational science is framed as one between an academization discourse, a democratic Bildung discourse, and a knowledge economy discourse that increasingly frames education in terms of market relevance. The debate over educational science and its Anglo-American borrowings is ongoing in all Nordic countries, albeit following different trajectories (Askling, 2006; Jarning, 2020; Korsgaard et al., 2017; Moos & Wubbels, 2018; Sundberg, 2007; Säfström & Saeverot, 2015).

The Anglo-American impact comes through most thoroughly in the turn toward the school effectiveness and improvement paradigm, which has to a large extent provided the ideas, concepts, and models for the OECD, the IEA, and other transnational organizations in their compilation of surveys, statistics, benchmarks, and imaginaries about best practices for testing and for improving student literacy, numeracy, and science achievements (Krejsler & Moos, 2021a; Scheerens, 2013; Slee et al., 1998; Townsend, 2007). This production of knowledge is compounded by an increasing interest in evidence and knowledge that works to improve a nation's human capital so as to compete in the global knowledge economy (Eryaman & Schneider, 2017; Hultqvist et al., 2018). This combined turn has increasingly favored school and teacher education research and practices that build on empirical studies about what works, preferably large quantitative comparative international studies. A strong piece of evidence illustrating this turn can be found in the report comparing Danish teacher education programs to those of Finland, Ontario, and Singapore. That report concluded that a key explanation for low Danish performance in transnational surveys was that Danish teacher education programs were philosophical and normative in comparison to those of Finland, Ontario, and Singapore, which were based on empirical research about what works (Rasmussen et al., 2010). The report was commissioned by the center-right Løkke Rasmussen government as part of its Growth Forum initiative, which subsequently went on to launch the 360-degree service overhaul of the Danish Folkeskole. In 2010, a concluding report from this high-profile initiative made recommendations that in future PhD scholarships should be used to boost Danish teacher educators' academic qualifications, as these educators were found to be lagging behind their Nordic counterparts in holding doctoral degrees. In 2007, only seven percent of Danish teacher educators held a doctoral degree; by 2018, the level had risen to 13%. The report's recommendations unambiguously pointed to the 'school effectiveness' and 'evidence'/'what works' approaches in its advocacy of PhD project topics focusing on empirical research about what works in areas like literacy, numeracy, science, and reducing the influence of social background on school results. In particular, it is telling to note what counts as scientific references in the report: top-scoring PISA is referenced 63 times, TIMSS 17 times, PIRLS 15 times, and there are references to

ten reports from the ENQA-aligned Danish Evaluation Institute (Skolens Rejsehold, 2010).

School effectiveness and the evidence/what works discourse has thus increasingly come to displace the often German-inspired pedagogy and didactics traditions that were previously influential. This trend has been institutionalized in the evidence-gathering organizations that contribute to setting the new agenda. This conspicuous turn in the politics of knowledge about what counts as educational research worth funding was, in Denmark's case, preceded by a number of developments, among which an OECD country report in 2004 on the state of Danish educational research and development studies is well worth highlighting. This, commissioned by the Danish government, concluded that Danish educational research was of too little utility for policymakers and practitioners, having too little focus and capacity in relation to the key areas for improving school performance (OECD/CERI, 2004). The report was commented on in detail by the ministry of education as well as the ministry of innovation and research. It recommended the establishment of a clearinghouse for educational research about what works in education, and explicitly mentioned two sources of inspiration: first, the American What Works Clearinghouse, established in 2001 with substantial steering and support from the Campbell Collaboration in order to serve as an evidence knowledge repository for teaching professionals in the wake of the 'No Child Left Behind' school Act, and, second, its rather similar British counterpart, the Evidence for Policy and Practice Information and Coordinating Centre (EPPI). The report led to the subsequent establishment of a Danish Clearinghouse for Educational Research in 2006. The Danish Clearinghouse had some limited success in influencing educational policy agendas, but only after adapting somewhat to established educational research in Denmark; however, the closure of that institution in 2019 highlighted the difficulty of re-contextualizing largely Anglo-American agendas in a Danish context (Krejsler, 2017; Krejsler & Moos, 2021a). Similar trajectories and attempts to change how educational knowledge is produced were seen with the establishment of the Swedish Institute for Educational Research in 2015: this was the product of similar pressure exerted by the Swedish government and educational administration authorities to base Swedish school and education more extensively on evidence for what works. Here, too, established Swedish educational research was bypassed and seen as non-cumulative, non-transparent, methodologically flawed, and – in addition – unresponsive to practitioners' needs for guidance about 'what works' (Adolfsson & Sundberg, 2018). In 2011, the Norwegian Knowledge Center for Education was established, commissioned by the ministry of education and research (from 2019 the Center was part of the University of Stavanger). It serves a similar purpose to its Swedish and Danish counterparts in assembling and disseminating national and international research, ranging from pre-school to higher education, as well as developing the genre of systematic reviews of educational knowledge.

In summary, the largely Anglo-American school effectiveness and evidence ideas and practices had to be re-contextualized in the various Nordic contexts, where, however, qualitatively oriented traditions were already dominant and no broad tradition existed of conducting randomized controlled trial experiments or

systematic reviews on the basis of neopositivist methodology in educational research. The confrontation illustrated that broader approaches to evidence are preferred in the Nordic countries (Adolfsson & Sundberg, 2018; Rieper & Hansen, 2007). This being so, approaches based on systematic reviews of more diverse primary studies, like those conducted by John Hattie in New Zealand under the badge of 'visible learning,' have therefore achieved considerable success in Nordic contexts. These offer more room for professional judgment in relation to specific contexts, which is considered crucial when such knowledge is to be implemented (Hattie, 2009, 2013). This approach also resonates well with a strong German tradition, represented by Hilbert Meyer and Andreas Helmke among others, that has had traction in Nordic contexts for considerable time. This tradition elaborates more inclusive narrative syntheses of what the wider educational research says about what works (Helmke et al., 2008; Meyer, 2004). Hilbert Meyer has concluded that research on what characterizes good teaching demonstrates consensus on the following points. It is well structured; the teacher knows his/her subject; methods cannot be chosen independent of context; and teaching that works takes individual differences and learning needs among the students into account. Syntheses of this latter kind have been criticized as too general and providing too little guidance and direction for teachers. The counter-argument, however, is that the context-dependent 'nature' of most problems related to education and teaching means that one must speak in general terms when one wants to say something at a context-independent level.

This cultural struggle over the politics and production of knowledge that counts came to a head in 2004 at an OECD meeting on evidence in Washington, DC. Here a debate was enacted between an Anglo-American Campbell-dominated voice on how evidence and what works should be understood, counterpoised to a Nordic voice that was more inclusive about what knowledge could be included in educational research aimed at reforming and improving school (OECD/CERI, IES, & Coalition for Evidence-Based Policy, 2004; Rieper & Hansen, 2007; Ydesen, 2022).

Altogether, the Anglo-American-dominated turn in the politics of how to produce knowledge that counts in educational research has had very considerable implications for teacher education in two important areas: in the organization of teacher education programs, and in what discourse is considered legitimate when it comes to content and conceptualization of how good school and teacher practice can be conceived (Krejsler, 2020).

14.4 The Effects of Transnational School Policy on Teacher Education

National school policies in the Nordic countries are therefore increasingly framed by the keen participation in transnational collaborations (Krejsler & Moos, 2021b, 2023 (in press)). However, because school policy is closely connected with national

identity and nation-building, this is a sensitive area. For this reason, it is regulated at the level of detail by national policy in all Nordic countries. The result is that school policy reform guided by transnational policy advice frequently encounters strong and vocal resistance when implemented in the national context (Blossing et al., 2016). And as teacher education was always intended to produce teachers who would realize the national aspirations behind increasingly frequent national school reforms, teacher education – like school reform – is by implication subject to continual reform. As seen in this volume, all teacher education programs in the Nordic region have in their different trajectories from a seminary toward a more academic university model been subjected to numerous reforms in recent decades, with the sole exception of Finland (where change after 1979 was limited to adaptations to the Bologna process in 2005 and 2016). In Sweden, reforms were launched in 1977, 1988, 2001, 2011, and 2021; in Denmark in 1991, 1997, 2006, 2012 and 2022. In Norway in 1973, 1994, 1999, 2003, 2010, and 2017, and in Iceland in 1971, 1978, 1988, 1993, 2008, 2011 and 2019 (e.g. Andersen et al., 2017: 25; Arstorp, 2012; Elstad, 2020: 38).

Against this background, it makes sense to mention a few key points where transnational school policy has transformed Nordic national school policies. Before the year 2000 and the OECD's PISA surveys and IEA's PIRLS and TIMSS surveys, Sweden and Denmark were traditionally looked upon as international champions of a Nordic model of progressive and child- and equity-oriented pedagogy which attracted considerable international attention (Telhaug et al., 2006). Since the turn of the millennium, however, the balance in reputation between the Nordic school and teacher education systems has been turned around, in the sense that Finland now occupies the position of the high-achieving, envy-producing school system and the focus of high-level international attention and visits, proving that East Asian achievements in literacy, numeracy, and science can be achieved with Nordic strategies (Andersen, 2007; Sahlberg, 2011, 2016). Sweden, Denmark, Norway, and Iceland have fallen behind, for the most part only achieving average or below-average scores. This change in fortunes has not, however, as previously mentioned, diminished the Nordic countries' passion for comparing themselves to each other. On the contrary, the comparisons have just been reconfigured, drawing now upon transnational surveys and statistics instead – the PISA and IEA surveys and OECD statistics such as 'Education at a Glance' (Hopmann, 2008; Jónasson et al., 2021).

The acceleration in reforms of school policy took off in particular with the launches in 2000 of PISA, the EU Lisbon Agenda, and the Bologna process, sustained by the similar but less well known IEA surveys of TIMSS (from 1995) and PIRLS (from 2001). PISA may serve as a particularly illustrative case of mutual adaptation. Since the launch of the first PISA survey in 2000, the discursive effects of the so-called PISA shocks have been regularly administered to the various member nations, with resounding effects on their self-perceptions and policy agendas. Under the impact of the PISA shocks, Germany's agenda for school and teacher education policy has been changed (Hopmann, 2008; Waldow, 2009). Among the Nordic countries, as mentioned, while Sweden and Denmark used to believe that they had world-class progressive school systems and that it was Finland that was

traditionally somewhat behind (Hopmann, 2008; Sahlberg, 2011; Telhaug et al., 2006), under the impact of the now-dominant political technologies, these perceptions have been turned on their head – notwithstanding that PISA, TIMSS, and PIRLS represent a narrow set of subjects (literacy, numeracy, science) and that measuring with an emphasis on testing and numbers is subject to inherent limitations (Hopmann, 2008; Meyer & Benavot, 2013). These transnational surveys generate a never-ending stream of criticism of teachers and teacher education as insufficiently fit to produce the next generation of highly skilled lifelong learners, and the criticism is then followed up by further school and teacher education reforms (Bales & Hobbel, 2018; Furlong et al., 2009).

The Danish case illustrates well how the logics of school policy contributed to setting and amplifying tendencies that generated teacher education reforms. The Danish self-perception of having 'the best school in the world' suffered its first devastating blow following the 1991 IEA literacy test of fourth-grade students. The mediocre performance of Danish students was termed the 'Togo shock' in the press, with the implication that Danish students were performing at the level of students in countries Denmark does not usually wish its students to be compared with, and considerably worse than any of the Nordic peers Danes usually compare themselves with (Mejding, 1994). This awareness of being the new underdogs in Nordic literacy comparisons intensified when the Nordlæs surveys contributed to concerns in the economic ministries that Danish investment in education was underperforming to a worrying extent (Finansministeriet, 1997). These events in the run-up to the launch of PISA and the Bologna process, and the subsequent tightening of school reform to commit to standards-based education and introduction of testing had predictable consequences for teacher education. Literacy and numeracy majors for student teachers were emphasized, at the expense of educational subjects such as pedagogy, citizenship, and general didactics, a key tendency in the teacher education reforms of 1997, 2006, and 2012. As standards-based education and the passions for data-driven improvement expanded in school policy and reform, pressure increased for teacher education to be increasingly based on empirical and evidence-based knowledge about what works. As mentioned above, these were the key conclusions in the OECD country report that led to the establishment of the Danish Clearinghouse for Educational Research (OECD/CERI, 2004), the comparative survey of teacher education programs in Denmark, Ontario, Singapore, and Finland, and the subsequent reorientation of priorities for new PhD scholarships with the 360-degrees service overhaul of the Danish Folkeskole from 2010 to 2012 (Rasmussen et al., 2010; Skolens Rejsehold, 2010).

But teacher education reform continues to be haunted by ambivalence in the Nordic countries as they move from a seminary tradition toward an academization driven by transnational policy advice and the school effectiveness and evidence discourse. One of the most consistent criticisms of teacher education has always been the supposed lack of coherence between what is called 'theory' and what is called 'practice': teacher education programs are supposedly too focused upon theory and normative ideals, with the result that they do not prepare student teachers adequately for their coming professional duties. To what extent these allegations

make sense has been debated for years. It does, however, point to the need of justifying how the increasing academization of teacher education programs by integration into universities, as stipulated by the Bologna process, can fit with the need to prepare teachers better for their professional lives. As underlined by Tyack and Cuban (1995), school reform and associated teacher education reform seems to produce their own particular inertia, where policy reforms follow the general political and educational waves of the times, whereas practice in school and in teacher education pays lip service to the demands without, however, changing at nearly the same speed.

14.5 Conclusion: How Transnational Collaboration Intersects with Nordic Collaboration and Teacher Education

This chapter has focused upon how teacher education policy and programs in the Nordic countries have increasingly been aligned with consensus-building transnational policy forums. The Bologna process has been particularly influential in reframing standards for teacher education, working in alignment with the school and educational priorities of the European Union and the OECD and influential surveys of student performance in literacy, numeracy, and science that emanate from the OECD and the IEA. Surprisingly, however, this does not mean that Nordic collaboration has diminished. What it does mean is that Nordic collaboration has been reconfigured, in the sense that transnational agendas increasingly affect, inform, and shape how Nordic agendas are construed. Nordic policymakers, practitioners, and educational researchers still maintain their tradition of collaborating in manifold ways – as also within other policy areas (Andersen et al., 2007; Krejsler & Moos, 2021b; Telhaug et al., 2006). This collaborative process takes place in formal collaborations within the Nordic Council, the Nordic Educational Research Association, and so forth, and it takes place in long-established informal collaborations in professional and personal networks between schools, teacher education institutions, and municipalities. This means that when Nordic school and teacher education policy develops and we look for rationales for improving in comparative terms, we practically always compare ourselves to the other Nordic countries – whether in the form of extensive use of data from PISA, TIMSS, and PIRLS about the other Nordic countries, or by reference to sizable participation in the Northern Lights conferences and Nordic publications (Jónasson, 2016).

As mentioned, Denmark suffered its first pre-PISA shock following the comparative IEA literacy survey of 1991. An important aspect of the reaction to Danish fourth-grade pupils' mediocre literacy skills was that Danish policymakers and the public at large noticed that Danish pupils had performed considerably worse than the Nordic neighbors with whom the Danes usually compare themselves (Mejding, 1994). This led to further Nordic comparative projects with the 'Nordlæs surveys' from 1996. Finland became the envied Nordic role model for teacher education,

with Finnish school catapulted to the top of PISA, TIMSS, PIRLS, and other transnational surveys. Finland had made teacher education into a 5-year master's degree program in 1979, long before the launch of the Bologna process. This move later became not only an envied inspiration for Iceland and Norway in particular, but also an agenda-setting point of departure for comparisons and debates about school and teacher education reform in Sweden and Denmark.

Ongoing experience with cycles of transnational collaborations and surveys thus supplies narratives of school and, by implication, teacher education that Nordic policymakers, educational researchers, and public debates take in and continue to churn, their gaze trained sternly on the other Nordic countries and, in never-ending amazement, at the Finns. Whether this can be called a Nordic model or, more modestly, a Nordic *dimension* remains a contested and never-ending debate in all the Nordic countries. There is certainly plenty of mutual inspiration, including in school and teacher education. It is plain to see, nonetheless, that each individual Nordic country chooses its own trajectory, resonating with what is politically and educationally possible within each national context and its historical and educational conditions.

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Chapter 15
Teacher Education of the Future: Trends and Possible Scenarios in the Nordic Context

Eyvind Elstad

Abstract This chapter uses current trends to outline possible scenarios in teacher education programmes in the Nordic countries. The starting point is that, aside from Finnish teacher education, teacher education programmes in Nordic countries have almost never been considered genuinely excellent. Therefore, teacher education has become a policy problem. As the developmental features of today's teacher education in the Nordic region are deeply complex and partly characterized by inherent tensions between contradictory considerations, making predictions is a daunting task. There is considerable diversity among teacher education programmes in Nordic countries, and future developments might take several paths. Therefore, one cannot talk about a single current or future model for Nordic teacher education.

Several premises for discussing the future of teacher education are considered in this chapter, including the idea of a knowledge economy and an emphasis on equality values. Policy-making is often set within general critical discourse about teaching and teacher education. The question is how teacher education institutions will respond to the various challenges that exist. In this chapter, trends and possible scenarios for teacher education in the Nordic context are discussed on the basis of a complex theoretical framework.

15.1 Introduction

This chapter uses current trends to outline some possible scenarios in teacher education programmes in the Nordic countries. As the developmental features of today's teacher education in the Nordic region programmes are deeply complex and partly characterized by inherent tensions between contradictory considerations, making predictions is a daunting task. Of course, future developments cannot be discussed with full or even a reasonable degree of certainty.

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As shown in the Chaps. 4, 5, 6, 7, 8, 9, 10, and 11, there is considerable diversity in the Nordic countries' teacher education programmes, and future developments can take several paths. Therefore, one cannot talk about a single model for Nordic teacher education, so these considerations have to be understood as broad descriptions that must be considered with a critical eye. The readers are invited to use the descriptions to form their own opinions.

The starting point of these considerations is that the teacher education programmes in Nordic countries have almost never been considered genuinely excellent. Therefore, teacher education has become a 'policy problem'. The exception is Finnish teacher education, which has been rated as 'outstanding' and 'excellent' (Barber & Mourshed, 2007; The British Educational Research Association, 2014; Darling-Hammond, 2017; Mourshed et al., 2010). Despite this, there are small quality differences among the Nordic countries' teacher education programmes, as far as student teachers are able to assess quality (see Chap. 11, Christophersen et al., 2017, and Elstad et al., 2021). However, it is conceivable that professional assessors will be able to find greater quality differences than what might be measured through student teachers' satisfaction indices.

The national cultures and histories of each Nordic country retain a strong shaping influence on the education systems. In the cases of the autonomous areas of Greenland and the Faroe Islands, the authorities of these areas determine the curriculum for teacher education within the four-year teacher education. But the Nordic countries have borrowed one another's political and policy measures (Chap. 2). Comparative teacher education research can find similarities and differences among the individual countries' educational systems that can be used as evidence in policy making (Sanderson, 2002). Those responsible for shaping a nation's education policy will naturally want improvements.

The first premise for discussing the future of teacher education is the idea of the knowledge economy (Powell & Snellman, 2004). In principle, each nation operates as a more or less independent player in a set of relations among countries. International politics can be understood as a struggle for power among states (Waltz, 2000; Blachford, 2020). Countries' interactions have grown to some extent through agreements, trade and migration, and relations typically have become closer via 'network governance' (Ball & Junemann, 2012). However, each country remains a competitive entity, and its economic development will be influenced by (among other things) the knowledge base of a critical mass of its population: workers, innovators, managers and so on (Powell & Snellman, 2004). Despite the highly complex mechanisms between the economy and education, the school plays an important role in facilitating the development of the knowledge base of citizens (especially knowledge-intensive jobs), future employees and innovators to succeed in a future that is uncertain and unknown (Hanushek & Wößmann, 2020). There is a widespread notion that the quality of a school's contribution to student learning depends on the quality of that school's teachers (Chetty et al., 2014; Rockoff, 2004). Thus, teacher education indirectly plays a role in maintaining the knowledge economy, at least on the rhetorical level. Education is a key to economic prosperity.

Teachers' work in the Scandinavian countries has periodically been covered in public reports about schools and the teaching profession, including in the 1990s. This has changed to some extent in our time, in the sense that current public documents have credited the teachers' work as being of great importance to learners' learning progress (e.g., White paper no. 112008/2009; Regeringskansliet, 2021). Therefore, teacher education has also become an even more important issue in political debate today compared to 40–50 years ago. Teacher education's annual production of newly qualified teachers means that change is relatively limited in the short term; it takes 45 years to produce an entirely new portfolio of teachers. Nevertheless, teacher education is important, as it lays the foundation for newly qualified teachers' competence to practice their profession. Learners' learning is measured, inter alia, by large-scale international surveys, to which each country's politicians attach great importance. International actors (for instance the OECD, the IEA and McKinsky) have promoted different kinds of measurements and evidence in an attempt to influence practices through the promotion of what Helgetun and Menter (2022) have called cultural-cognitions in education. The league tables of student performance have become central in both the political sphere and the public conversation about school and education. To perform better, the focus is often on successful solutions ('the world's best'; Barber & Mourshed, 2007; Mourshed et al., 2010) that can serve as inspiration and thus the basis for policy and funding. In this context, international actors are important in promoting the development of teacher education in their desired directions (see Chap. 14).

The second premise for discussing the future of teacher education is the Nordic countries' emphasis on equality values (Blossing et al., 2014). The school should provide students with equal learning opportunities. One implication is that the lack of qualified teachers will make it difficult to achieve such a goal. The lack of teachers with adequate qualifications poses a challenge to varying degrees in the Nordic countries, with Sweden facing the greatest challenges (Chap. 3). In the worst-case scenario, teacher shortages can weaken the national ambition of providing schoolchildren with equal learning opportunities.

As an institution, the school has historically been important in certain countries' efforts to create a national identity (especially in Norway, Iceland and Finland in the 19th and 20th centuries). Nation building occurred under the auspices of (among other things) the school in a situation where a young nation lacked a recent history as an independent state.

It is an open question whether nation building will be replaced by supranational visions of a future where every country's situation depends heavily on those of other countries. Thus, contributing to the formation of a national identity under the auspices of the school could be replaced by promoting global unity, creating world citizens (OECD, 2018), European citizens (Ritzen et al., 2016) or at least Nordic citizens: Vision 2030 declares that the Nordic Region should become the most integrated region in the world. Do these visions reflect transnational intentions? In that case, we would move away from the nation-state and devalue national citizenship in favour of Nordicism and globalism (Trägårdh, 2019). If this were to occur, the

Nordic countries' school systems will surely undergo significant changes geared toward the enrichment of the national welfare for the benefit of global welfare.

The vision of the Nordic social contract (reciprocity in benefits between the state and the individuals, all citizens regarded as equal, the requirement for every able person to contribute by working, etc.) is distorted in the direction of hybridization (Trägårdh, 2018). One possible inference is that the vision of a Nordic citizenship has increasingly been raised as an idea, but it is too early to tell whether this kind of thinking will be consolidated further. It is an open and unresolved question whether the Nordic region is on its way out of the post-war welfare state and into something else we do not have clarity on now. There are emerging features (for instance increasing proportion of pensioners, social security recipients et cetera) that can possibly undermine the established welfare schemes in the Nordic region.

Teacher education has to be regarded as a subsystem of each country's education system. Although large-scale international surveys on teacher education are in short supply, teacher education institutions have to some extent been treated as scapegoats by politicians and educational administrations. As shown in several other chapters of this book, teacher education has been criticized from a variety of perspectives. Policy-making is often set within a general critical discourse about teaching and teacher education. The question is how teacher education institutions will respond to these challenges. In the following section, I reflect on this issue on the basis of a complex theoretical framework.

15.2 Theoretical Framework for Discussion of Possible Scenarios

The theoretical framework for the approach in this chapter is divided into three levels: (1) the transnational level (Chap. 14; Martens & Jakobi, 2010); (2) the institutional level, with external and internal dynamics (Olsen, 2007); and (3) interactions between teacher education institutions and practice schools (Lejonberg et al., 2017).

15.2.1 Globalization as a Trend and its Impact on Teacher Education

Despite the impacts of globalization, the decision-making framework for policy making remains national. The national cultures and histories of each country still retain a strong shaping influence on education (Rizvi & Lingard, 2010). The Nordic countries' teacher education programmes have distinct national features or features distinct to the autonomus areas (Chaps. 4, 5, 6, 7, and 8). Moreover, some variations exist within each Nordic country. Nevertheless, it is possible to envisage a

convergence in the direction of increasingly university-based teacher education institutions across the region. The first temporary vicarage seminars for teachers became institutionalized teacher training seminaries over time. Teacher seminaries have been turned into colleges, which have later been incorporated into universities (though to varying degrees). This evolution is named a universitisation trajectory.

Among politicians and key decision makers in the university domain, there is a strong belief that large entities are favourable, and synergy processes are expected to create large, powerful entities through mergers. Furthermore, there is an increase in profiled institutional initiatives as a consequence of institutional leadership. These initiatives may help an institution's branding, but this tendency does not appear to be strong for teacher education. In Finland, Iceland, Greenland and Faroe islands, the process has been completed, only university-based teacher education is offered. The extent to which teacher education institutes are integrated into universities, is another question. In Sweden and Norway, it seems likely that the process will be completed in a few years, while Denmark (without the Faroe Islands and Greenland) has considered the university path but has chosen a different direction. Although the Danish choice is an outlier, the universitation intention for teacher education looms large elsewhere. The five-year university model will be in accordance with the Bologna Declaration with its emphasis on the master's degree as a competence requirement for the teachers of the future. In terms of content, it is the Finnish model that has been a source of inspiration and paradigm to a large extent for the other Nordic countries, with teacher education understood as a research-based curriculum.

However, there are signs that teacher education in Iceland is being adjusted away from the model introduced about ten years ago (see Chap. 8). In other words, developments can prove to be uneven, with each country having to find solutions to the challenges that it faces. If the convergence assumption holds true, this can be viewed as a manifestation of globalization mechanisms, of which the OECD is the foremost promoter. This is especially true in schools. But comparison of teacher education attainment across the world has only happened once (the Teacher Education and Development Study in Mathematics, TEDS-M).

One possible scenario is that a balance will be sought between maintaining some national features and opening the door wide to globalized influences. The liberalization of the labour market in European countries can be expected to continue, which could contribute to market mechanisms in the labour market for teachers, with those educated in another country migrating to where job vacancies exist and wages are sufficiently attractive. In Norway, teacher salaries are among the highest in Europe and the Norwegian salary level offer incentives to attract teachers from other areas of Europe to specific geographical areas of Norway. On the other hand, Icelandic and Swedish teachers express less satisfaction with their salary and these countries do not offer strong incentives to attract teachers (European Commission/EACEA/Eurydice, 2021).

Further stronger inputs from international student teachers and teacher educators can also be expected. There is a rapid increase in international mobility, and further harmonization of specific requirements seems inevitable. The trend towards

increased globalization may create additional needs for tailored solutions for complementary teacher education for migrants. The Swedish employment based route (KPU) with a new shorter supplementary pedagogical education is an example. Mastery of the country's official language does not seem to be an annoying limitation. That trend is also marked among teacher educators by certain concepts and models gaining ground, such as English becoming the lingua franca of teacher education research. Teacher educators are also increasingly educated in other countries. In the long term, will it also affect the language of communication in the Nordic countries' teacher education programmes? There are currently courses for teaching in English, but they remain an exception for the time being.

At the level of educational bureaucracy (governments), some transnational organizations carry out their work through networks (governance). One example is the OECD, but other organizations also fall into the transnational category (e.g., UNESCO, World Bank). The most closely related governance mechanism is the change in the education bureaucracy's policy pursuit (Martens & Jakobi, 2010). Programme for International Student Assessment (PISA), Trends in International Mathematics and Science Study (TIMSS), Progress in International Reading Literacy Studies (PIRLS) and national tests provide the educational bureaucracy with the necessary information to drive the levers of policy execution. Another possible influence is through policy coordination across sectors and countries, and the structure of teacher education programmes in individual European countries is becoming increasingly similar.

The third mechanism that can be observed as a result of coordination is policy convergence (Martens & Jakobi, 2010); the content and structural variations among teacher education programmes are decreasing. One factor that refers to convergence is the autonomy of teacher educators and teacher education institutions. Overall, however, the conclusion is that further pressure in the direction of globalization can be expected, but certain national features will persist in the Nordic countries' teacher education programmes. The relative significance of nations and globalisation is unclear. 'Vernacular globalisation' expresses the ways in which international policy trends become mediated by national politics and cultures as they are instantiated in particular settings (Rizvi & Lingard, 2010). The national cultures and histories of each country will still retain a strong shaping influence (Menter et al., 2019).

15.2.2 Institutional Dynamics of Teacher Education

Here, I use Olsen's (2007) four stylized ideal-types (Weber, 1949) as theoretical anchors for the interpretation of possible scenarios. First, teacher education in Nordic countries is governed by each country's educational bureaucracy or administration. The word *bureaucracy* is not used in a derogatory sense in this chapter. The purpose may ideally be an effective administrative control of a sector, down to the individual institution, which in turn is built up as a hierarchy where the lower levels are managed by more senior levels.

Teacher educators have a Janus face: On the one side teacher educators at the university departments have to adapt to the premises, expectations and norms of the university world. On the other side, teacher educators cannot possibly succeed unless school staff and those who are being trained as teachers find the content of the training to be relevant. The positioning of research in relation to practice shapes a tension. Expectations in Minerva's world in Nordic countries are connected to target figures for publication points, citation indexes and the international relevance of research. Teacher educators are to day increasingly incorporated into the universities' meritocratic structures. The values of those who form part of the professional community of teacher educators are maintained by having a common identity rooted in competence and assured through education, guided training and initiation into a professional culture. The relationships among community members are characterized by collegiality, collaboration and an appropriate attitude to merit through research and development (R&D) work. These are bottom-up processes that can lend greater practical relevance to teacher education or to even more academic content in teacher education. Several mechanisms are possible. The meritocratic system of the university community, with its emphasis on research, has affected the meritocratic system of teacher education institutions, as an increasing number of institutions have been incorporated or converted into universities. The question is how a greater research orientation influences the work of managing teacher education's teaching and guidance. A tension arise easily between a professional mission and an academic mission of teacher education.

The ideal type of 'Co-influence of student teachers' has its origin in an expanded vision of democratic co-influence in the arenas where individuals are participants. Student empowerment can manifest itself as a legitimate requirement for participation in formal decision-making bodies, in planning and even in the ongoing operations of interactions between teacher educators and students. Student participation in governing bodies' decision-making processes is a reality that is not going away. Furthermore, responsiveness to the students' current preferences and perceptions of reality will be sharpened through complaint schemes, expressions of opinion in the media and the like. One example is the Norwegian authorities' responsiveness to individual student teachers' criticisms that are reported in newspapers; it is said that practical educational education, 'especially from student teams, has been criticized for maintaining a low level of quality, including limited relevance for later professional life' (Ministry of Education, 2014, p. 57). Communication via social media may reinforce the tendency to view teacher education from a consumer perspective, and teacher dissatisfaction with teacher education may find a powerful social medium. So far, the Nordic student organizations have not organized schemes such as ratemyprofessors.com (Otto et al., 2008), but it is only a matter of time before this happens. When it does, the student's user perspective will be even more relevant.

The fourth cell in Fig. 15.1 deals with marketization or market-based policy. Among the European countries in the 1980s, England chose a decentralized teacher education model that emphasized apprenticeship in schools. Since 2010, the role of universities in teacher education has been further marginalized (Menter et al., 2019). A new market review arrangement arises in 2024. Admittedly, school-based teacher

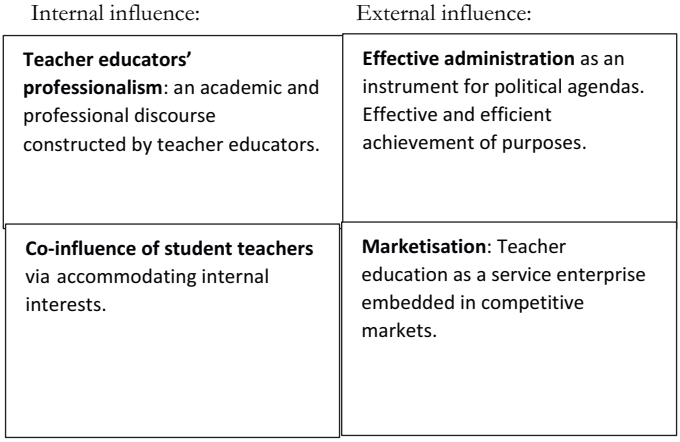

Fig. 15.1 Institutional dynamics of teacher education institutions as the balance point between four different ideal types. (Adapted from Olsen, 2007)

education in England must still have an academic affiliation, but several reputable universities have stopped providing teacher education because of uncertain framework conditions; for example, funding is secured only three years at a time. The English Inspectorate's assessment of quality in the Teach First programme (Chap. 13) has been 'outstanding' across all quality dimensions (the Office for Standards in Education, Children's Services and Skills, OFSTED, 2015). Teach First Denmark has also received a very good rating from an external panel of experts (VIA University College, 2018, 2019). This means that the expert panels used in these two cases do not appear to emphasize the academic merits of teacher educators. Is this a sign that community controllers are not emphasizing the expectations of the academic world? The operations of the teaching profession are understood in English education policy as the practice of a craft (Department of Education, 2010). Teach First, through which the programme operates in England, is an example of a market-oriented model for teacher education that has now become dominant. We do not know whether anyone foresaw the development path that teacher education in England would take.

The English government has yet (Department of Education, 2021) decided that there are issues of quality with initial teacher education programmes and therefore set in place a 'Market Review' led by a group of 'experts'. The aim of a market review arrangement (with delivery from 2024) is to make well informed, evidence-based recommendations on how to make sure: all trainees receive high-quality training. Furtermore, the teacher education 'market' arrangement will maintain the needed capacity to deliver enough trainees and is accessible to candidates. The chair of the expert group, which proposed the market review arrangement, is determined to see through some very radical policy recommendations. The report (Department of Education, 2021) has managed to unite universities, providers of school-led teacher education, teacher unions, headteacher organisations, the Chartered College

of Teaching and Universities Council For the Education of Teachers in opposition to the proposals but these opposition voices were not listened to when the government made its decision. One question is: will the English case set the agenda for market driven reforms in teacher education in the Nordic region? The answer is: we do not know.

The Nordic region, except Finland and the Faroe islands, experience a general shortage of teachers, sometimes exacerbated by imbalances in their distribution across subjects and geographical areas, an ageing teacher population, dropouts from the profession and low rates of enrolments in teacher education programmes (European Commission/EACEA/Eurydice, 2021). To tackle teacher shortages, some Nordic municipalities offer incentives to attract teachers to specific geographical areas.

In the Nordic debate, it is quite rare to find explicit arguments for market solutions in teacher education, but the arguments that do occur tend to be most frequent in circles that are faithful to the tenets of economic liberalism. The Swedish think tank Timbro (2019) argues that 'private actors should have the opportunity to conduct teacher training', as does *Smedjan* (Svanborg-Sjöwall, 2018) and the newspaper *Bulletin* (Birgersson, 2021). These market-friendly organizations hold that teacher shortages can be solved by the market because they have the perception that private schools are a) successful because their students have high grades and b) that they have very good teachers. Private foundations might be freer in relation to the state and thus have the opportunity to put greater focus on the profession rather than the school's part in building an equal society. Is private teacher education possible? Although it does not (yet) exist to any significant extent, there is no ban on private teacher education in Sweden, Norway and Denmark. Private teacher education was a significant activity (about 64% of all trained teachers) in Denmark in the years 1862–1894 (Skovgaard-Petersen, 2005). This shows that marketization of teacher education is not an unknown phenomenon at all.

There are also technically several private teacher education institutions in Norway, Sweden and Denmark. Jönköping University in Sweden, NLA University College in Norway, and The Independent Academy for Free School Teaching in Ollerup in Denmark are accredited private university colleges (but are private foundations). A new situation will arise with private profit-seeking companies which aims to establish itself in the teacher education market. So far this has not happened.

A number of sectors that have traditionally been managed by public monopolies – such as those in the transport and health sectors – have been put out to tender. There are even some examples in primary and lower secondary schools. In Norway, the municipality of Oslo has chosen to announce an outsourcing competition for school management education. Teach First Norway is subject to the municipality of Oslo (while formal teacher qualification is under the auspices of the University of Oslo). The OECD also recommends that countries invest in 'alternative paths into the profession' (2019, p. 39). Currently, the Teach First programmes in the Scandinavian countries have modest profiles and participation rates (Chap. 12). Although market-oriented solutions do not seem to be a likely scenario at the moment, they cannot be ruled in the future.

The dimensioning and management of teacher education are still regarded as national responsibilities (although from a political point of view, an arm's length distance is sometimes created for the problems that arise due to national policy). In the Scandinavian countries, many politicians are not satisfied with the quality of teacher education. Politicians recognize the challenges of teacher education and are to some extent willing to provide the sector with more resources to solve its problems. In other words, politicians in the Nordic countries feel responsible for dimensioning and quality in teacher education. In Denmark, the authorities are willing to put greater financial pressure on the education sector than is observed in the other Nordic countries, partly through demands for savings and partly through demands for reallocation of funds based on performance. Denmark is the only country so far that has been willing to use institutional accountability as a tool in higher education. Finland is not as inclined towards reform as the other Nordic countries (see Chap. 5), but at the time of writing, the education authorities in Norway, Iceland, Denmark and Sweden are willing to show some patience with the teacher education sector. The Finnish education sector has not been affected by many reforms and stands out on this point in that the various educational institutions are delegated much of the decision-making power.

The four stylized ideal types are based on assumptions that make it unlikely for any of them alone to fit well as a description of current practices. Different trends can be identified, as can variations and contradictions that make it more plausible to consider the four ideal types as different aspects of university organization and its management (Olsen, 2007). The students' interests are represented on the boards of the Nordic countries' teacher education institutions, but the balance between bureaucracy and professional communities (see Fig. 15.1) is more interesting. Will this balance shift in the direction of greater administrative control, or will market-oriented solutions win out? How will students' interests represent themselves in an even more digitized future? We do not know.

On one hand and subject to nuances, teacher education in the Nordic region (outside Finland) has been repeatedly reformed. In essence, any reformer deals with dissatisfaction; teacher education has probably never been considered satisfactory. On the other hand, reforms legitimize the existence of the regulating party; why should there be a growing public sector of ministries, directorates, state control bodies and the like without subjecting the very purpose of the regulation to forced change? Career advancement is ensured through a constantly saturated public sector (Niskanen, 1975). The bureaucrats' self-interest, utility maximization, and other non-wealth-maximizing considerations affect their decision-making. This is a little explored area.

Institutional blossoming, combined with access to external funding for centres of outstanding teaching, is added to the range of tools that show tangible results of policy decisions that are interpreted as successes. The idea of centres for excellent teaching has spread from Norway to other countries. If we consider only the number of frontline workers (i.e., teachers), we have never had as large an education sector as we do today. When an economic 'rainy day' occurs, the question of cuts and the efficiency of the education sector is raised (for instance, in Finland, Myklebust, 2021).

However, reforms can also be viewed in the context of the dynamics between governing bodies; if different political wings have different medicines for the ailment to be cured, there can be a yo-yo effect. The exchange of government power, for example, between the left and the right can in itself create the need for change to mark an incoming government's ability to describe new political changes as reforms. Nonetheless, cross-party agreement across established political wings has also occurred (e.g., in Denmark and Sweden), which has meant political consensus on teacher education policy and school policy.

In an age of recurring reforms, a rational response at the institutional level may be window dressing; a wise leader may not unnecessarily torment those who carry out the core business, but they make themselves visible to embody the desirable attributes for the organization's success and survival in ways that are observable by the outside world (Røvik, 2007). In many cases, the challenge may be to find a pragmatic, justified balance between above-cells in Fig. 15.1. The conclusion must be that national authorities will continue to recognize their responsibility for teacher education and try to deal with the challenges of teacher shortages and quality failings through the politically implemented policies that will appeal to teacher educators and teacher education institutions. Quality assurance will continue to be important, and traditional benchmarking may even expand its scope. Whether other Nordic countries will follow the Danish experiment with a clear-cut institutional accountability arrangement remains an open question. There has been borrowing of political and policy approaches among the Nordic countries in the past, but there is no automatic assumption that political expectations will have severe consequences. Market-based solutions have a weak tradition in the Nordic countries' teacher education programmes. However, we cannot ignore the fact that the elected authorities can establish the framework conditions for market-based solutions for teacher education in situations where the teacher shortage challenge seems insurmountable. If this issue occurs, then Sweden will be the most interesting case to follow. Will Sweden adopt a school-based teacher education to solve its teacher shortage problem? If so, the question is: Is the Swedish trajectory an outlier or a pioneer in the trajectories of policymaking for teacher education programmes in the other Nordic countries? We do not have the answer to this question.

15.2.3 Partnership and Roles in Teacher Education

The third component of this chapter's theoretical framework concerns the interactions between teacher education institutions and the school sector. The endemic tension between professional and academic mission (Labaree, 2018) is embedded in teacher education arrangement in the North. School practice has always been central to teacher education in the Nordic region programmes (see Chap. 4, 5, 6, 7, 8, 9, 10, and 11). Nevertheless, in recent years, a certain right to talk about a change of practice in universities' teacher education programmes has emerged, in the sense that teacher educators' recognition of the importance of practice may have increased

(Lawn & Furlong, 2011). Partly, the element of school practice has been amplified through legislation. Partnership with schools means quite different things in different models (Mutton et al., 2018). One illustration could be teacher education in England and Scotland, both of which use the so-called partnership models. In Scotland, reflexive practice is considered good, and practices are jointly exercised in partner schools in what is called professional education (Donaldson, 2011). In England, the practices for schools can best be understood as those of craftsmanship (Department of Education, 2010). Thus, the student teacher becomes understood more as an apprentice in a school using a teacher education model that contains fairly modest elements of campus teaching. The rhetoric of the partnership idea in Norway, Sweden, Finland and Iceland is more like the Scottish teacher education model than the English one. In different ways, partnerships are being sought. Finland's has been around the longest: it has training schools and a network of selected field schools. The Finnish training schools have a designated role in research and development. The relationship between training schools and teacher education institutions is somewhat different in Denmark, where the schools have a more independent function in the partnership than appears to be the case of the experiments involving university schools in Norway and to some extent in Sweden.

In many teacher education programmes, the traditional model for the connection between theory and practice first applies the theoretical focus, followed by a short-term practicum (where the student teachers observe and practice some teaching), then a return to the theoretical focus, before a long-term practice stage (internship), in which student teachers try to perform as teachers under the guidance of a teacher or school-based tutor. Teacher education is usually completed with another theory-based phase and a final examination (Hammersnes, 2013). The main premise of organizing education in this way is that the teacher education institution has formal responsibility for the whole programme as the dominant party in an asymmetrical relationship between the institution and the training schools. The traning schools are usually cooperative parties in a scheme where the teacher education institutions generally play the lead role. Agency theory predicts that the non-conformity between the principal's and the agent's self-interests leads to the agent's choice being a poor option for the principal (Lejonberg et al., 2017). One possible case may be when the training school chooses a student teacher who is not best suited for the assignment.

An intriguing idea in the debate about ideal teacher education is to understand partnership as a hybrid model between two more or less equal partners – universities and training schools (Zeichner, 2010). This partnership model has several reasons that recommend its implementation, and a variety of partnership models already exist. In some universities, partner schools have been established, having qualified through an application process for the term 'university school'; they cooperate relatively closely with the teacher education institutions. Additionally, there are individual agreements with other schools for the implementation of student practice. Renewal efforts over the last decade involve striving to create a 'third space' in the university–school relationship (Arhar et al., 2013; Bier et al., 2012; see also McDonald et al., 2011). To be successful, this renewal must involve commitment and a willingness to change from both universities and training schools. Nevertheless,

whether these collaborations work in accordance with the ideas embedded in the ideal model of a partnership is an empirical question.

The conclusion must be that the idea that the teacher education institution should be the principal in cooperation with practical schools remains strong in the Nordic countries. Nonetheless, institutions are often encouraged to deepen their cooperation with practice schools in the direction of a somewhat more equal relationship between the parties. On one hand, it seems likely that these types of trial will continue and likely increase in number. On the other, it seems unlikely today that the authorities in the Nordic countries will consider school-based teacher education courses in the manner of English teacher education.

15.3 School Development and Teacher education's Need to Change

Teacher education should be the starting point in the professional practice of a successful teacher. The content of teacher education will have to reflect changes in the teacher's work, preferably ahead of or leading the change processes that occur in schools. In this section, we cite some brief examples of trends in school development and society's expectations of teachers' job performance. Here, the examples can be understood more as ideal models than empirical descriptions. First, school development is discussed in connection with digitization and an example that shows the restoration of the classic school model and strengthened teacher authority. Thereafter, legalization is discussed in connection with school activities that have an impact on how future teachers can exercise their role.

The intentions behind the new Kviberg School in Sweden can serve as an anchor for discussing the changes required in response to teacher education's need to qualify future teachers to work in in this type of school. The municipality of Gothenburg describes the school as 'a school of the future'. The traditional 'grammar of schooling' (Tyack & Cuban, 1995, p. 85) is based on the idea of teaching different subjects in relatively short blocks (typically 45 minutes) in classrooms for age-appropriate classes. At Kviberg School, however, this scholastic 'grammar' is broken down for more individualized solutions. Classrooms are considered outdated; instead, students instead work with iPads in open work areas. A 'maker-space' (a kind of information and communications technology workshop) is arranged in which students learn how to work with 3D printers and use their own iPads to communicate with teachers and other students. Each student should have a personal work schedule, and students work in age-matched groups. The school's idea is based on the four C's: 'communication, collaboration, creativity and critical thinking' (Kviberg School, 2019). Content knowledge is not among these C's. At the intention level, this type of school development can be thought of as extremely individualized facilitation of learning, where students primarily work with their own iPads in a kind of network model that changes both the roles of both teachers and students (Siemens, 2008). In

principle, it is conceivable that a student could sit at home and carry out all the learning activities and associated communications on purely virtual channels. There are many analogous cases of school development in the Scandinavian countries.

In contrast to the modernization of the school exemplified by the Kviberg School, Michaela Community School in London (Birbalsingh, 2016) was launched as a protest against school development trends amidst riots and social problems in one of London's poorest areas. Here, the 'grammar' of the traditional school is restored as a counter-reaction to disciplinary slippages; there should be calm during school hours. The learners – unless told otherwise – sit at their desks. Teaching takes place in clearly separated time blocks in classrooms for learners divided into age cohorts. Michaela Community School seeks solutions based on teacher authority and control. The timetable has fixed weekly lessons for teaching the various subjects, with teaching carried out in classrooms where the desks are arranged in rows. The school focuses on academic knowledge and discipline throughout the school day. Its 'no excuses' strategy means that even minor misconduct has consequences (Birbalsingh, 2016). All teachers at Michaela are committed to this strategy. The school year starts with practicing common rules. An example of a goal is for students to remain in their seats for 30 seconds after the bell rings.

Every day, lunch is served to both students and teachers. All students are assigned places to prevent cliques from accumulating around the lunch tables. Students also have duties; one serves the food to everyone around the table, another pours water for everyone, a third clears the table after the meal and so on (personal observations). The lunch is led by a teacher at each table. The topic of conversation may be current events, literature or natural phenomena. The purpose of conversation during lunch is to cultivate a repertoire with stimulation of factual arguments, learning to take responsibility for common tasks and so on. The school has received a lot of positive attention for its outstanding results and student performance (OFSTED, 2017; Weale, 2019), along with some criticism (Williams, 2016). It is mentioned here because some schools in the Nordic countries are following similar ideas of strict regulations, such as students shaking the teacher's hand when entering the classroom. How strongly the conservative restoration of an old-fashioned school model will spread in Nordic countries remains to be seen, but the restoration of teacher authority may be reinforced, given the number of discipline problems and incidents of violence against teachers in Nordic schools (OECD, 2019a).

Between these two extreme cases, other examples show a continuum of approaches. The question is whether the emphasis in school development will be towards a progressive modernization of the type represented by Kviberg School or towards a conservative restoration where traditional subjects, knowledge acquisition and discipline are emphasized. If the development moves towards dissolving what we know as fixed structures in the school (subject-specific schedules, teaching in classrooms with the teacher leading the session, exams, etc.), we may witness the beginning of the end of the institution that we have long known as school. If that happens, there will be profound implications for teacher education. A former headmaster of Kviberg School stated that teachers recruited for the new school would

have to be urged to become pioneers. This signaled that the school administration wanted to appoint a specific type of teacher.

Can teacher shortages be alleviated by individualizing and digitizing teaching? Every student receives a work plan with his or her expected progress laid out. Students are given digital learning opportunities, with teaching sequences available in an online portal. Virtual (but still somewhat 'intelligent') feedback and guidance can be provided through digital platforms. Such solutions may also include feedback from real mentors. Anyone who envisages a forced development of the school in this direction will have to recognize that such a school will be a long way from what we have hitherto understood as school.

It is part of the story of Kviberg School and other pioneering schools that new ideas elicit counterarguments from parents and politicians and incite community debates. How radical school development will be is an open question. Elstad (2016) analyses a case of school development (through a focus on computers for all students) that went in reverse, while Hauge (2016) explains a case of school development that has been a continual process of in-depth digitization. On one hand, several types of mechanisms can occur through modernization that combines information and communication technology with the new working methods. On the other hand, new trends have also been replaced by the restoration of established school practices. Thess types of development have implications for teacher education, but the implications of modernization for teacher education are uncertain. Either way, the digitization of school activities is something for which teacher education must prepare to an even greater extent. Political rhetoric expresses the expectation that teachers should develop their own professional digital literacy skills, and teacher education programmes in all Nordic countries are concerned about this issue.

15.4 Increased Legalization and its Implications for Teacher Education

Another trend in Scandinavian countries is the increased legalization of matters related to school activities. For example, legalization can be manifested through strengthened student rights. This is a result of political decisions that have been accelerated through reports of alleged teacher bullying in school. Strengthened student rights affect the balance of power between teachers and students, where the teachers' transactional position (Elstad, 2002) is weakened. Enhanced student rights have been and appear set to be further institutionalized, which may be illustrated by an example. The Child and Learner Ombudsman (BEO) has become a participant in the Swedish School Agency's activities. The BEO must counteract abusive treatment and safeguard the rights of students. An example of a sanctioned action on the part of the National Agency for Education (with a fine of SEK 15,000, or well over 1000 euros) concerns 'Carina', a teacher who physically removed a disruptive student from the classroom. 'The student had not behaved properly and was very loud

during the lessons. Therefore, the teacher saw no other way but to grab the student and lift him out of the classroom' (GT, 2019). The attention given to the case contributed to the school's desire to dismiss Carina, who chose to quit before her dismissal. Similar incidents have been appealed in the Swedish legal system, as exemplified below:

When a learner refused to move from a couch that blocked the way in a rest room, the learner was physically moved by a teacher. Both the district court and the court of law considered that the intervention was justified. However, the BEO now appeals the case to the Supreme Court and demands that the student receive SEK 10,000 in damages from Lidköping Municipality. (GT, 2019).

A similar strengthening of learner rights has also occurred in Norway through the 2017 changes to the Education Act. These changes were based on the Djupedal Committee's report. That committee understood 'violations' as an umbrella term for words or actions in which a person's dignity is violated. It is enough that an episode or incident leads to a subjective feeling of discomfort for the student in question in order to trigger an obligation for the school. For example, in a Norwegian high school, a decision was made that a teacher had offended a student by making the latter focus on the time (Norsk Lektorlag, 2017). In other words, violations can also include extremely sensitive perceptions. This new legalization trend in Swedish and Norwegian schools has implications for the content of teacher education; teachers of the future must be extremely cautious about exhibiting behaviours that can provide a subjective experience of learner discomfort. This offers guidance in the direction of a more facilitating teacher behaviour. It remains an open question whether this trend can be reversed through political decisions based on the increasing reports of violence against teachers in Scandinavian countries (DF, 2017; Jarn, 2018; Skagen, 2019). If such a reversal occurs, it could be perceived as a move towards a conservative restoration of teacher authority. While measures can certainly be expected to curb violence against teachers in the Scandinavian countries, the precise kinds of measures that will be implemented are not yet known.

15.5 Teacher Education Institutions and Management of Educational Research

One possible scenario is that educational research about and in teacher education institutions and assessment research are moving in different directions (Menter & Tatto, 2019). Some trends towards a split can be observed in the literature that is cited in public studies on teacher education. It can hardly be said that the studies refer to a broad portfolio of teacher education research (although some examples show that public investigations have a broad review of research; see, e.g., SOU, 2018, p. 17). It is investigative research that is often referred to in white papers.

The management of educational research takes place, among other things, through criteria for research funding. For example, such criteria may emphasize

practice closely situated to research or research using quantitative methods or close collaboration with schools. This is ensured by appointing designated decision makers from user organizations to determine which research projects will receive public funding. It is remarkable that professionals from disciplines other than educational theory and didactics (e.g., people with professional backgrounds in economics, political science or sociology) have been allocated substantial funds through these open calls. This means that the differences between the phenomena to be explored and the professionals' subjects are porous; social science disciplines other than educational theory and subject didactics have penetrated the field of educational research and to some extent outperformed the pedagogues' research applications. No educational research by educationists is cited or rarely cited in these economic analyses af education (for instance Gansle et al., 2012; Goldhaber et al., 2013; Goldhaber, 2019; Sass, Semykina & Harris 2014). The question of whether this is related to the discrepancy between the research interests of educators and what is demanded from the educational policy perspective is unclear.

In any case, it is a fact that the educational authorities have established R&D units that will contribute to national and international competence development within educational metrics. These may be entities that also act as advisors to the educational authorities. Here, too, much of the recruitment takes place outside the ranks of educators. These developments would hardly have occurred if the educational authorities were satisfied with the educational research that was actually conducted. The conclusion is that the research position of the teacher education communities is uncertain in relation to both politics and practice.

In sum, this means that research in teacher education communities and other educational environments can be challenging (Menter & Tatto, 2019). However, the situation may differ in some countries. Alternative expertise is being developed elsewhere than at universities (f. ex. https://researched.org.uk/). Furlong (2013) makes the point that educational research in England is significantly influenced by the fact that universities have lost control of much of teacher education. The situation in 2022 shows a further loss of control.

It is uncertain how the teacher education communities in the Nordic countries would be able to position their research to make a stronger appeal to those who practice teaching in schools on one hand and the funding authorities on the other. One possible scenario in the Nordic context could be that educators' research could gravitate towards more esoteric phenomena and away from practical issues. There are a number of indications that this is happening (Eklund, 2008). Another is that an enforced practical closeness to schools will contribute to ensuring relevance in teacher educators' teaching, external course practice and R&D work. There are also opportunities for creating arenas and communication channels where teacher educators and school people could meet. Examples are the Danish journal *Paideia* and the Norwegian journal *Bedre skole*. A probable scenario involves considerable diversity regarding the question of research facilities among those who work with teacher education and who thus have a research obligation. It is unclear what the broad trends will be, but teacher education researchers in academic environments seem to have irrevocably lost their former monopoly position.

Developments in England show that it is not a matter of course that educational politicians and the educational bureaucracy choose the teaching staff of universities as discussion partners to pursue educational policy and the organization of teacher education research. The Market Review arrangement is intended to use a new infrastructure for teacher education (the Institute of Teaching):

The Department of Education at Oxford is recognised as a world-leader in educational research and interns have access to and are able to draw on the expertise and experience of our academic staff in a range of different areas. … We do not believe that a similar infrastructure exists at the Institute of Teaching, and therefore question whether postgraduate awards validated by the institute will carry the carry the same reputational rigour (University of Oxford, 2021).

There is a need for continuing education of school, teacher education and education bureaucracy staff. The conference sector often draws speakers from outside the teaching staff cadre. The reasons for this are difficult to specify, but one possible interpretation is that conference organizers want to line up with well-known people, including 'superstars', who know the art of delivering appealing messages. The tendency seems to be that popular messages are presented without embarrassing considerations of evidence for strong claims (personal experiences). Nonetheless, these superstars can sometimes refer to investigations with strong evidence. The conclusion is that the teaching position of the teacher education communities is uncertain, and it cannot be ruled out that this is about the fact that teacher education research has uncertain pragmatic relevance to the field of practice.

15.6 Instrumentalist Trend?

Instrumentalist ideas have emerged and disappeared at irregular intervals in the history of teacher education. The latest examples of instrumentalism are linked to actors outside the teacher education community who call for a 'system for sharing quality-assured and research-based teaching and learning programmes for student teachers' (Stortinget, 2019b). This is part of a pervasive international trend. For example, the OECD is in the process of building Global Teaching InSights, which is a 'global video library of teaching' (2019). The increased interest in reverse teaching may be complementary to this potential trend. Student teachers gain access to a bank of educational content that they can use flexibly. This can free up time for more individual or group-based guidance in teaching situations. Thus, instrumentalism can go hand in hand with the digitization trend in schools.

The teacher can become the executive technician who implements ready-made arrangements. To some extent, feedback to students can also be digitized and even automated (Kulik & Fletcher, 2016). However, it is difficult (at least for me) to envision a fully automated content delivery (where content explanations and lectures are fully digitized and can be listened to and viewed as appropriate by the student) and feedback practices (automated but 'intelligent' feedback). In this case, such development of automated functions will affect both the need for teachers (including

teacher educators) and the actual execution of the teacher's role. The contrast to the teacher who initiates completed programmes or components of completed programmes is the teacher as the reflexive, autonomous professional practitioner. Between these two contrasting positions lie several intermediate positions in which the teacher appears as an autonomous figure who composes his or her teaching from a rich menu of tools. The conclusion must be that an instrumentalist trend will likely affect the work of the teacher education cadre, but the range and the depth of this change impulse are uncertain.

15.7 Conclusions

In this chapter, the complex and dynamic relationships and tensions among teacher education research, transnational trends, national policy practice and teaching practice are discussed. The impact through globalization processes has prevailed in education in general, including teacher education, but certain national characteristics still exist at a time when the pressure of globalization has been exerted to its fullest extent (Menter, 2019). The pace of change is rapid, but it is uncertain whether the development trajectory will behave as a linear process. A complete eradication of national peculiarities is difficult to imagine. It is plausible that some national differences among the Nordic countries' teacher education programmes will continue to exist. Moreover, the variations within each country are quite large, but further convergence in structure (and to some extent content) can probably occur. It can be assumed that the teacher–student exchange among European countries will accelerate beyond what we observe today. However, the requirement for adequate proficiency in each country's language(s) may limit this tendency to some extent. This is particularly true for teacher education at the lowest elementary school level, where genuine mastery of the learners' mother tongue is particularly important.

I also dare to believe that cross-country mass migration trends will cause the common European labour market for teachers to flourish and thus to a greater extent, through market mechanisms, where a shortage of skilled labour in one country may attract applicants from other countries. This phenomenon is currently occurring to a considerable extent in the labour market for doctors, and it seems likely that the labour market for teachers will also be further 'Europeanized' to a greater extent than is the case today (Fig. 15.2).

Established approval schemes for teacher education from European countries already make this possible. As mentioned, there may be some practical barriers

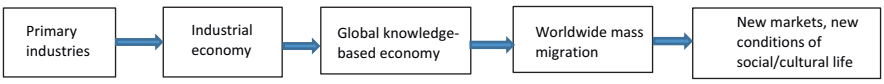

Fig. 15.2 The larger historical-social setting for teachers' work and teacher education. (Adapted after Cochran-Smith et al., 2016)

associated with language and possibly culture, such as the willingness to shake hands. The provision of additional components for those educated outside Europe is also an indication that the portfolio of teachers will be characterized by an even greater degree of international recruitment. However, it is uncertain what the long-term consequences will be, but the labour market for teachers in the Nordic countries will likely be of interest to teachers from outside Europe. The labour market for teachers will therefore be further globalized.

Educational systems must ensure that today's young people learn what it takes to succeed in the society of the future. Possible implications are increasingly diverse population of learners and probably growing school equality. This means that teacher education must prepare teachers for diversity and equal opportunities for learning (Cochran-Smith et al., 2016). Rapid change processes related to technology development and labour needs, population development and migration and market development in an increasingly globalized economy redefine society's need for skills, which requires updating and adequate educational changes (OECD, 2019). The a knowledge economy is a powerful image, while the realization of Nordic equality values in school practice is under pressure. If the realization of equality values is further weakened, for example, in Sweden, the readers may find that the quality characteristics of what has been called the Nordic school model in this book may decline?

Teacher education has over time conquered the inner sanctum of the universities in the North (except Denmark) because the universities expanded their scope of mission (Elstad, 2010). Universities have mostly today a strong commitment to teacher education through their civic aims and values. But this is not an obvious truth: In England, this process seems to be reversing as elite universities will avoid teacher education in the future. So far, we do not see any similar indications in the Nordic region.

The Nordic countries recognize the national authorities' responsibility to provide an adequate number of teachers of sufficient quality. Finding solutions to the schools' needs by arranging market-oriented teacher education systems (compare the success of Teach First in the UK and similar market arrangements for teacher education in countries like Chile, Mexico, Pakistan and the United States; see Tatto & Menter, 2019) seems unlikely in today's context. However, it is notable that key players in private schools perceive themselves to be allied with Teach First institutions in a kind of struggle against the established education system (see, e.g., Birbalsingh, 2016, p. 12). Privatization in schools and teacher education seems to go hand in hand in some countries. The Scandinavian Teach First institutions' production of teachers is currently very modest, but the phenomenon does exist (Chap. 13). The educational authorities so far seem to have the patience and confidence in the established teacher education institutions' ability to find solutions to the aspects of quality that have been criticized. However, no one predicted the development of school-based teacher education and market-based solutions like Teach First.

One aspect of uncertainty for state-funded teacher education in the established institutions arises when recognized crises occur, such as a lack of an adequate number of teachers with credentials in Sweden. As Sweden has liberal market-designed

school system, it cannot be ruled out that it is easier to generate market solutions in Sweden than in other Nordic countries. Some believe that market-oriented solutions ensure access to an adequate delivery of professional teaching. This possibility should be viewed in the context of the digitization of schools under the auspices of collaborative ICT groups. For example, the Swedish company Nationalencyclopedin (together with Sana Labs) has developed digital aids in mathematics that are tailored to each student (Billing, 2018). The tool is already used in several Swedish municipalities' schools. Similar developments can be envisaged for the large Swedish school enterprises. One possible scenario is that these types of technological solutions could be used to alleviate the lack of teachers with adequate teacher identification (Svanborg-Sjövall, 2018); teachers with adequate credentials can benefit from centrally designed teaching programmes while assistants without adequate credentials support each student's learning work. The Swedish educational system would then benefit from economies of scale when a resource (qualified teachers) is scarce. These types of ideas are based on notions about the radical renewal of the educational system in which each student will be provided with an individual curriculum and adequate technological equipment for personalized support (Siemens & Conole, 2011).

Even physically present interaction can be replaced with digital communications. This type of development is not yet comprehensive and extended, but the trend cannot be ignored. Teacher education can be reformed in a similar way, with content delivered through video recording of lectures, allocation of digital learning resources through digital platforms, implementation of online communication (including virtual tutors), scanning of student work to reveal plagiarism and so on. Automation of teacher education can entail scaling changes in the form of cost savings, and significant rationalizations are possible. It is worth recalling that the digital revolution outlined here has not yet been implemented in teacher education in the Nordic countries. The question is when the digital revolution will occur in Nordic countries' teacher education programmes. What will it mean for the content and structural character of the teacher education programmes we know today?

Despite the criticism of university-based teacher education models, that approach appears to have emerged victorious on virtually all fronts in the Nordic countries, with the exception of Denmark. This trend means that the campus component of teacher education is becoming increasingly academic. While the previous recruitment of teacher educators often came from the training schools, a new cadre of teacher educators with academic credentials has entered the teacher education institutions. Many of these new teacher educators have never practised as teachers themselves, but they often have doctorate degrees. The teacher education offered by the universities thus stands with one foot in each camp (Maguire, 2000). The university units must adapt to the virtues, expectations and norms of the university domain. These expectations are related, among other things, to target figures for production of publication points, citation indices and the international orientation of research.

At the same time, university teacher education cannot succeed over the long term without the professionals in the schools, and those who are educated as teachers must perceive the content of that education as relevant to real-world teaching to a

reasonable degree. Success in being relevant to the school world – that is, to students who judge the quality of education from their own perspective – while being successful in the increased scope of relevant research in international channels requires balancing contradictory and even conflicting impulses (Elstad, 2010; Goodson, 1995).

One potential danger that cannot be overlooked is that it is possible to bridge the gap between the campus teaching theory base and the field of practice theory to a limited degree. However, the two-part career paths for teacher educators can mitigate the challenges when calling for more methodology in teacher education's campus teaching. Partnership solutions can also alleviate the internal tensions between academic teacher education and the consideration of practical closeness to the core mission of schools (Mutton et al., 2018). However, a retreat back to teacher seminaries does not seem very likely, although approaches similar to the school-based teacher education system implemented in England cannot be completely excluded. The term *university* obviously has prestige in the Nordic countries. The Finnish teacher education model for research-based practice appears to be a strong source of inspiration for other Nordic countries. A possible exception is Iceland, where problems with the dropout rate of student teachers could lead to a policy shift that helps avoid the research-based master's thesis conflict with school issues (Chap. 7).

A challenge in all Nordic countries is the need to perceive teacher education and teacher learning in the first years of practice in a wider context. Some scholars argue that teachers' continuous development must occur under the direction of the school without contact with teacher education institutions (Lemov, 2015). There will likely be a stronger focus on support functions for teachers (known as 'induction') in their first year of practice (OECD, 2019). One possible Nordic scenario may mean expanded tasks for today's teacher education institutions. Another scenario is that other actors (e.g., course solutions provided by private actors or municipalities) may see to these types of tasks. Anyone interested in the future of teacher education will experience exciting times ahead.

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