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.

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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.

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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 compulsoryschool 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 dropout 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.

References

- Act No 87/2008 on the education and recruitment of teachers and administrators of preschools, compulsory schools and upper secondary schools. Retrieved from https://www.government.is/Publications/Legislation/Lex/?newsid=af2a91ae-cf96-11e7-941f-005056bc4d74
- Act No 95/2019 on the education, competence and employment of teachers and heads of compulsory, lower secondary and upper secondary schools. Retrieved [in Icelandic] from https://www.althingi.is/lagas/nuna/2019095.html
- Aðalsteinsdóttir, K. (2007). Að styrkja "haldreipi skólastarfsins": Menntun grunnskólakennara á Íslandi í 100 ár. *Tímarit um menntarannsóknir, 4*, 57–82.
- Bjarnadóttir, R. (2012). Stefnumótun í kennaranámi: Áhersla á rannsóknir áhersla á vettvang. Netla – Veftímarit um uppeldi og menntun. Retrieved from http://netla.hi.is/greinar/ryn/002.pdf
- Björnsdóttir, A., & Jóhannsdóttir, P. (2020). Nemendur í Menntunarfræði leikskóla að loknu BA/BS/B.Ed.-prófi haustið 2019: Spurningakönnun meðal nema í M.Ed.-námi skólaárið 2019–2020. Menntavísindastofnun.
- ENIC/NARIC Iceland. (n.d.). *Icelandic qualification framework for higher education*. Retrieved from https://english.enicnaric.is/iqfhe.html
- Eyjólfsson H. E. & Stefán Hrafn Jónsson, (2017). Skýrsla til starfshóps um nýliðun og bætt starfsumhverfi grunnskólakennara í Reykjavík: Könnun á meðal útskriftarárganga úr kennaranámi HÍ/KHÍ og HA árin 2000–2012. Reykjavík. Retrieved from https://reykjavik.is/sites/default/files/skyrsla_til_starfshops_um_nylidun_og_baett_starfsumhverfi_grunnskolakennara_i_reykjavik_v2_med_cover.pdf
- Háskóli Íslands. (2020). Komdu að kenna.. Retrieved from https://www.hi.is/komdu_ad_kenna Háskóli Íslands. (n.d.). HÍ í tölum, Nemendur. Retrieved from https://www.hi.is/kynningarefni/ nemendur
- Háskólinn á Akureyri. (2020). Grunnám: Kennarafræði BEd. Retrieved [in Icelandic] from https://www.unak.is/is/namid/namsframbod/grunnnam/kennarafræði
- Hauschildt, K., Vögtle, E. M., & Gwosé, C. (2018). Social and economic conditions of student life in Europe. Eurostudent VI 2016–2018: Synopsis of Indicators. Retrieved from https://www. eurostudent.eu/download_files/documents/EUROSTUDENT_VI_Synopsis_of_Indicators.pdf
- Hauschildt, K., Gwosé, C., Schirmer, H., & Og Cras, F. (2021). Social and economic conditions of student life in Europe. EUROSTUDENT VII Synopsis of indicators, 2018–2021. Retrieved from https://www.eurostudent.eu/download_files/documents/EUROSTUDENT_VII_Synopsis_of_ Indicators.pdf
- Jóhannsdóttir, T. (2010a). Deviations from the conventional: Contradictions as sources of change in teacher education. In V. Ellis, A. Edwards, & P. Smagorinsky (Eds.), *Cultural-historical perspectives on teacher education and development* (pp. 163–279). Routledge.
- Jóhannsdóttir, T. J. (2010b). Teacher education and school-based distance learning: Individual and systemic development in schools and a teacher education program. (Ph.D. Doctoral Thesis), University of Iceland. Retrieved from http://hdl.handle.net/1946/7119
- Jóhannsdóttir, T. (2013). 'What we wanted to do was to change the situation'. Distance teacher education as stimulation for school development in Iceland. Netla Online Journal on Pedagogy and Education. Retrieved from http://netla.hi.is/greinar/2013/ryn/010.pdf
- Jóhannsdóttir, Þ. J., & Björnsdóttir, A. (2018). Staðnemar og fjarnemar í grunnskólakennaranámi við Menntavísindasvið: Bakgrunnur, viðhorf og áhugi á að starfa við kennslu. *Netla Online Journal on Pedagogy and Education*. https://doi.org/10.24270/netla.2018.11
- Jóhannsdóttir, P., & Jakobsdóttir, S. (2011). Samkennsla stað- og fjarnema við Menntavísindasvið Háskóla Íslands: Reynsla og viðhorf kennara og nemenda Togstreita og tækifæri [co- teaching campus-based and distance students at the School of Education, University of Iceland. Experience and views of teachers and students Conflicts and opportunities]. Netla Online Journal on Pedagogy and Education. Retrieved from http://netla.hi.is/menntakvika2011/033.pdf

- Kaaber, S., & Kristjánsdóttir, H. (2008). *Aldarspegill. Kennaraskóli Íslands/Kennaraháskóli Íslands* [story of one century. The Icelandic teacher training college / Iceland University College of Education]. Reykjavík: Kennaraháskóli Íslands.
- Kristinsson, P. (2010). Bolognaferlið og Háskóli Íslands. *Uppeldi og menntun*, 19(1–2), 213–216. Mennta- og menningarmálaráðuneytið. (2019). *March*. Nýliðun kennara. Retrieved from https://www.stjornarradid.is/lisalib/getfile.aspx?itemid=2d8cee62-3f5b-11e9-9436-005056bc530c
- Rasmussen, J., & Dorf, H. (2010). Challenges to teacher education in the Nordic region programs. In B. Hudson, P. Zgaga, & B. Åstrand (Eds.), Advancing quality cultures for teacher education in Europe. Tensions and opportunities (pp. 51–68). Umeå University.
- Regulation No 872/2009 on the content of education for teachers in preschools, compulsory and upper secondary schools. (2009, October 23rd). Retrieved (in Icelandic) from https://www.reglugerd.is/reglugerdir/allar/nr/872-2009. [Reglugerð um inntak menntunar leik-, grunn- og framhaldsskólakennara, nr. 872/2009].
- Ríkisendurskoðun. (2017). Kostnaður og skilvirkni kennaramenntunar. Háskóli Íslands og Háskólinn á Akureyri. Skýrsla til Alþingis. Retrieved from https://rikisendurskodun.is/ wp-content/uploads/2017/02/SU-kostnadur og skilvirkni kennaramenntunar HI og HA.pdf
- Sigurðardóttir, A. K. (2014). Development of teacher education at the University of Iceland School of education. Report on working P-procedures and main issues in the shaping of teacher studies since 2008. University of Iceland School of Education.
- Sigurðardóttir, A. K., & Kjartansdóttir, I. (2018). Viðhorf brautskráðra leik- og grunnskólakennara 2014–2016 til námsins og starfsins. Retrieved from https://rafhladan.is/bitstream/handle/10802/16777/afdrif_brautskradra_kennara_skyrsla_aks_og_ik_loka_22okt18_0.pdf?sequence=1
- Sigurðardóttir, A. K., Jóhannesson, I., & Óskarsdóttir, G. (2018). Challenges, contradictions, and continuity in creating a five-year teacher program in Iceland. *Education in the North*, 25(1–2), 135–154.
- Sigurðsson, B., Jónsdóttir, H., Jóhannsdóttir, P., & Björnsdóttir, A. (2020). Grundskollärarutbildningen i Island. In E. Elstad (Ed.), Lærerutdanning i nordiske land (pp. 157–176). Universitetsforlaget.
 Stefánsdóttir, L., & Mýrdal, S. (1993). Fjarkennsla um tölvunet. Uppeldi og menntun, 2, 121–130.
 The Icelandic National Curriculum Guide for Compulsory Schools. General Section. (2011).
- Retrieved from https://www.government.is/library/01-Ministries/Ministry-of-Education/ Curriculum/adskr_grsk_ens_2012.pdf
- Westbury, I., Hansén, S.-E., Kansanen, P., & Björkvist, O. (2005). Teacher education for research-based practice in expanded roles: Finland's experience. *Scandinavian Journal of Educational Research*, 49(5), 475–485.

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