

## Teacher education in Finland: a review of a national effort for preparing teachers for the future

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The quality of teachers is one of the most frequently cited factors explaining the quality of an education system. This article discusses the nature and role teacher education plays as a part of the Finnish education system. Teacher education in Finland is a highly competitive field of masters' degree university studies and is provided in universities all across the country. Students are selected through two-phase entrance exams which emphasise, in addition to academic qualifications, the candidates' personal suitability and motivation for teacher's work. Elementary-class-teacher education, which is discussed in more detail, includes a strong practical and research orientation. The Finnish school system's approach in responding to the demands of increasing standards is to put a lot of trust in teachers and local education authorities to deliver good outcomes instead of centralised norms and consequential accountability. One Finnish solution is also the extensive learning support system; for example, by special education, which can also be regarded as a challenge for the future with regard to the universally agreed goals of inclusive education.

**Keywords:** teacher training; competencies; educational system; initial teacher education; student selection; PISA; Finland; inclusive education; practice teaching

### Introduction

The Finnish education system came into the global spotlight at the beginning of the new millennium when the results of the first Organisation for Economic Cooperation and Development (OECD) PISA assessment were published (OECD 2012). In Finland these were greeted with surprise or even disbelief. Traditionally the Finns had been used to looking abroad for the best models of educational reforms and it was rather difficult to adjust to the idea that our 15-year-olds were ranked on average as the most fluent

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readers among the 32 countries who participated in the first PISA study (Lie, Linnankylä, and Roe 2003; Välijärvi et al. 2002). Soon, a steady stream of overseas visitors began to visit our country in order to discover the reasons behind the Finnish success, and headlines such as ‘Finnish schools succeed because teaching is valued’ (Mansell 2009) and ‘Finland tuned into teaching’ (Anonymous 2005), started to become frequent in the international media. Hundreds of foreign delegations, and a few more successful PISA rounds later, the reactions in Finland had changed from disbelief to a pride over our comprehensive school system and some even saw potential business opportunities in the global interest toward Finnish education. As an epitome of these hopes, our Ministry of Education and Culture (2010) drafted a strategy paper on exporting what a recent US-origin documentary film calls ‘The Finland phenomenon’ (*The Finland Phenomenon* 2011).

Many competing and complementary explanations have been given for the seemingly good learning outcomes of our ninth-graders. The suggested reasons have included the systematic writing system of the Finnish language, homogeneous national culture and even the usage of subtitles in foreign TV programmes. Still, perhaps the most frequently mentioned factor, is the good quality of teaching staff, which is assumed to result from high entry standards and the university-level training that all educators must pass in order to receive their qualifications. Also, several Finnish authors have emphasised the quality of our teachers and teacher education in ensuring good learning outcomes in our comprehensive schools (Välijärvi et al. 2002; Sahlberg 2011). This view has gained further support from influential policy papers such as the 2007 McKinsey report (Barber and Mourshed 2007), which concluded that high-performing school systems are characterised by excellent quality of teachers and teacher education. John Hattie’s (2009) synthesis of over 800 meta-analyses relating to student achievement supports the idea that teacher quality indeed, accounts for a large proportion of the variance in student achievement, although the findings on the effect of training of teachers are much less convincing.

Being teacher educators, researchers, and teacher education graduates ourselves, we do not hold illusions that the Finnish system of teacher education would be a perfect response to the needs of our education system, let alone to the needs of other countries. To be precise, we do not believe that simply modelling Finnish practices in some other cultural and geographical contexts would automatically result in higher rankings in school system league tables. In this article we discuss some of the main features of teacher education in Finland, and by that way attempt to provide an informed insight into our national efforts to prepare teachers who would possess capabilities needed in twenty-first-century schools.

The article begins with a discussion of the regional distribution of teacher education institutions and their role in ensuring educational equality in the Finnish school system. It will then describe the main

features of the university entrance examination by using the case of class teachers as an example. Following this, the research-based model of Finnish teacher education will be illustrated and a closer look is taken into the role of practice teaching, again in class-teacher education programmes. Next, the article will briefly explain how the Finnish teacher education has tried to respond to external pressures such as the international standards and accountability movements. Finally, it will discuss future challenges and reform needs of Finnish initial teacher education, concentrating mainly on the issues of inclusive education and supporting students with varied learning needs.

### **Teacher education institutions in Finland**

Teacher education in Finland is organised in 8 universities in 11 campuses that are spread across the country, covering all geographical regions from south to north and from west to east. Originally, the idea of establishing universities in all regions was a result of national regional politics, which saw the balanced geographical placement of universities as one way for increasing educational equality. This goal is related to the building of the so-called Nordic welfare state, which saw that public authorities were responsible for the welfare of all citizens. Among other things, the objective of the welfare state was to increase socio-cultural, geographical, and gender equity (Antikainen 2006).

Today universities are no longer government institutions as the new law on universities that took effect in 2009 made universities autonomous legal entities. This new position, together with the economy-driven demands of cutting public spending, have resulted in questioning whether the existing geographical coverage of universities is needed. There are increasing demands for universities to negotiate among themselves on which areas of study they want to profile themselves. This demand that comes from the Ministry of Education and Culture, which still largely finances universities' functioning, was further enforced by statistics of the estimated needs of new graduates from different fields of study. The Ministry expects that Finnish universities do not enrol more students than will be required to produce the expected numbers of professionals needed by the future labour market. Universities negotiate with the Ministry of Education and Culture every three years and agree on funding and expected number of graduates from different fields of study.

In Finland there are different teacher education programmes for primary-school class teachers and subject teachers which reflect the structure of the Finnish school system. Finnish comprehensive school is a nine-year basic education that can be divided into primary education (grades 1–6) and junior secondary education (grades 7–9). In primary schools, class teachers teach the same group of students usually for several

years. Quite often some teachers specialise for the early learning phase (grades 1–2), while other teachers concentrate on teaching the remaining four grade-levels of primary education. In addition to class teachers, primary schools usually employ a few subject teachers for language teaching. Junior secondary education is organised according to the subject teacher model, although each class of students (25–30 students) is assigned one teacher who works as their coordinator. Primary and junior secondary phases are technically part of a unified comprehensive school, although in most cases primary schools and junior secondary schools function in different school buildings and have their own principals. In most municipalities there are more primary schools which are also located closer to most students' homes than the fewer junior secondary schools.

Currently, in teacher education, the national expectation for the next 15 years is an increase in demand for class teachers and kindergarten teachers and special education teachers, whereas there is over-production of some specific subject teachers. In recent years, there has been some pressure to remove the teacher education programmes from some universities. Finnish universities, however, have been quite successful in promoting the argument that keeping teacher education programmes in all existing units is an effective way of guaranteeing a constant supply of new teachers in all parts of the country. Thus, despite the pressures to decrease and profile programme offerings, the Finnish universities agreed to continue the previous policy of having teacher education present in all major geographical regions of the country (UNIFI 2011).

This long-standing policy has led to a situation where in most parts of the country teacher positions are mostly held by fully qualified teachers. In 2010, 95.2% of elementary class teachers were qualified for their position. Interestingly, the need for more qualified teachers is not highest in the peripheries, but rather in the urban centres around Helsinki, the capital of Finland. For example the proportions of formally qualified teachers were 97.6% in Lapland and 97.7% in Eastern Finland whereas the corresponding figure in the Helsinki region was 88.3%. The lack of qualified teachers is highest in special education, where 76.1% of all teachers were formally qualified for their work. In the Helsinki area only 64.6% of special education teachers were qualified, whereas the corresponding figures of Lapland and Eastern Finland were 80.1% and 88.1% (Kumpulainen 2010). In the light of these figures it is perhaps a small paradox that most teams of foreign visitors who come to tour Finnish schools, do so mainly in and around the Helsinki region.

### **Student selection for primary-school class-teacher education**

For a long period of time, primary-school teacher education has been one of the most popular study programmes in Finland and it typically attracts

applicants with excellent secondary-school diplomas. In recent years, the nationwide number of applicants for class-teacher education programmes has been approximately 7000, when the yearly intake is about 900 students. The popularity of class-teacher education is also illustrated by the large amount of previously unsuccessful applicants who apply year after year for these programmes (Räihä 2010a). Once the students have got into class-teacher education, they seldom drop out or transfer into other programmes (Nissinen and Välijärvi 2011, 133). Yet another sign of class-teacher students' commitment is that their average graduation time, five years, is shorter than in many other fields (Nissinen and Välijärvi 2011, 31). It is also noticeable that after graduation the teachers' retention in the teaching profession has been high compared with many other Western countries; for example England and the USA (Smithers and Robinson 2004; Keigher 2010). It has been estimated that only 10–15% of Finnish educators transfer to other occupations during their whole career (Nissinen and Välijärvi 2011, 31).

Generally, it is hard for the newly qualified secondary-school graduates to get into class-teacher education, and even less than one fifth of all new students are enrolled in the year of their graduation from secondary school. This is far from the Ministry of Education's objective of 50% of graduates being accepted into higher education the year they graduate from secondary education. In order to remedy the situation, a decision was made to increase cooperation between universities and to streamline the selection process for class-teacher education (Räihä 2010a). In 2007, the Ministry of Education decided to reform the pre-selection phase of the two-phase selection system of class-teacher education by introducing a nationwide literary test which is called VAKAVA (the Finnish acronym for National Educational Selection Cooperation Project). The VAKAVA exam consists of academic articles, about 180 pages altogether. A multiple-choice test is prepared on the basis of these texts and it aims to measure memorisation, understanding and the ability to apply the knowledge in the articles. The VAKAVA exam replaced the earlier system in which the applicants for the second phase of the entrance examination were chosen based on points that were accumulated from the matriculation examination grades and the additional scores which could be attained by studying educational science in open universities, working as a school assistant or as an unqualified teacher (Räihä 2010a). This old system was seen to discriminate against the newly matriculated applicants. Unlike in the old system, the VAKAVA examination is open to all those eligible for higher education, which is supposed to improve the chances of newly matriculated applicants (Räihä 2010b). However, this reform has not been very successful in increasing the enrolment of new graduates, and still in 2009 less than one fifth of those accepted to class-teacher education had

finished secondary school in the same year. A side-effect of the new national VAKAVA exam has been the rise of market-priced preparation courses that some private cram school firms have started to offer for the teacher education applicants.

In the second phase of the selection exam, the so-called aptitude test is given to those applicants who gain acceptable scores from the first phase. The second phase of the selection procedure is university-specific and each university invites about three to four times more applicants than they have available places. The aptitude test is aimed to be an evaluation of applicants' suitability, motivation and commitment to teacher education and the teacher's work, and it usually consists of two parts – an interview and a group discussion task. Some universities also include the scores gained from the matriculation examination (baccalaureate) in the second-phase selection process. Those who interview the applicants and evaluate the group discussions are experienced teacher educators from teacher education departments and university practice schools or from other schools that participate in teaching practice. This evaluation does not have a standardised scoring system, but each university has their own guidelines that are discussed in detail before the aptitude test in the briefing of evaluators. Although there is some variation between universities in the content of this test, they are generally very much alike – and have been for decades – which has fuelled a heavy scholarly criticism towards them. For example, Rähkä (2010b) claims in his doctoral thesis that the role of the selection tests has been to reproduce the teaching profession rather than to reform it.

As described, there is some foundation for criticism towards the enrolment process of class-teacher education in Finland but nevertheless, especially from an international perspective, this highly competitive selection system has undoubtedly contributed to the fact that Finland has committed and high-quality teachers.

### **The structure of class-teacher education programmes**

In every Finnish university, the structure of class-teacher education programmes (Table 1) is roughly similar. Finnish class teachers, who mostly work as primary-school teachers, major in educational science (150 European Credit Transfer and Accumulation System [ECTS] credits altogether). Their major studies include 60 ECTS credits of 'teachers' pedagogical studies'. According to Finnish legislation, pedagogical studies must be studies in the educational sciences with an emphasis on didactics and obligation to include supervised practice teaching. Teachers' pedagogical studies include supervised practice teaching (20 ECTS credits minimum). This proportion can also be higher depending on each university's own decision made in Faculty Council. The aim of guided practice teaching together with pedagogically oriented studies is to

Table 1. The structure of the class-teacher education degree programme in the University of Eastern Finland.

		ECTS credits (300 in total)
Major studies (education)	Basic and intermediate studies	65
	Advanced studies	85
	Teacher's pedagogical studies	60 (included in basic, intermediate and advanced studies)
Minor studies	Multidisciplinary subject studies (subject didactics/pedagogy)	60
	Minor subject(s)	2 × 25 or 1 × 60*
Other studies	Orientation, language and communication studies	25
	Optional studies	5–15

\*Typically 60 credits in one subject or 25 credits in two subjects taught in the Finnish comprehensive school (primary and/or secondary level).

support students in their efforts to acquire professional skills in planning, implementing, evaluating, and developing teaching and learning processes. Another important element of class teachers' major studies is the completion of a master's thesis (approximately 40 ECTS credits).

In addition to educational studies, the class-teacher programme also includes obligatory multidisciplinary studies of school subjects (60 ECTS credits) which comprise the basics and pedagogy of all those subjects that are taught in the Finnish primary school (grades 1–6). The class teachers can also become qualified to teach in grades 7–9 if they study minor studies worth at least 60 ECTS credits in some subject taught in the secondary schools. An important task of pedagogically oriented studies, either educational science or multidisciplinary studies, is to encourage teachers to examine and develop their own research-based practices. The goal is that the teachers become familiar with the latest research on learning and teaching and are able to combine subject content knowledge and pedagogical content knowledge in teaching.

Although Finish universities have the autonomy to decide their curriculum, there is a national legislation of the contents, objectives and minimum credits regarding teacher education. According to Act 794/2004 § 18, a special aim of teacher education is to equip students with the ability for autonomous action as a teacher, instructor and educator. In 2005, together with the European-wide Bologna process, teacher education in Finland changed into a system where a three-year bachelor's degree and a two-year master's degree in appropriate subjects will qualify teachers to teach in primary and secondary schools. When Finnish universities prepared new curricula to correspond with the Bologna system they had much national cooperation and all universities responsible for teacher education established a national network for educational sciences and teacher education (Niemi and Jakku-Sihvonen

2009; Vokke-project 2006). The main task of this network was to coordinate the implementation of the degree programmes and to activate interaction and knowledge sharing between teacher education units through organising seminars, setting-up sub-networks of university representatives and arranging other opportunities to discuss, argue and reach a consensus concerning the common national components and structures of teacher education. As a consequence of the cooperation, all universities now share a common structure of teacher education and, according to Niemi and Jakku-Sihvonen (2009), a rather good consensus has been reached concerning the core contents of the curriculum.

### **Research-based model of teacher education**

In academic literature and debate, the predominant teacher paradigm seems to be based on an idea that teachers are reflective practitioners who actively investigate their work and critically apply evidence-based educational knowledge to inform practice. Since the 1970s, Finnish teacher education for all teachers of comprehensive schools has been arranged at universities. Before that, primary-school teachers were educated at teacher-training colleges and they received about three years of education. Secondary-school teachers went through an academic discipline education in universities, after which they had one year of practical teacher training in a university practice school, so-called 'normal schools'. In 1979 it was decided that the basic qualification for secondary- and primary-school teachers should be a master's degree, which takes about five years to complete. The purpose of the reform was to unify the core aspects of elementary- and secondary-school education and to develop an academically high standard of education for prospective teachers (Niemi and Jakku-Sihvonen 2006, 32).

The research-based approach to teacher education developed along with the increase of the academic status of teacher education (Jakku-Sihvonen and Niemi 2007) and its origins can be traced back to the 'teacher as researcher' movement of action research educationalists who encouraged teachers to investigate their own teaching (Jyrhämä et al. 2008; Tryggvason 2009). The idea of the 'teacher as researcher' is mostly associated with the work of Stenhouse in the 1970s. The idea of Stenhouse (1975) and his colleagues was to help teachers to develop as self-reflective practitioners who could examine their own practice critically and systematically. Niemi and Jakku-Sihvonen (2006) suggest that teachers should internalise a research-orientated attitude towards their work. This means taking an analytical and open-minded approach to the work, drawing conclusions based on observations and experiences, and developing teaching and learning environments in a systematic way.

The class-teacher education in our own university systematically aims to educate reflective practitioners who understand what research-based evidence is and can relate it to their own work as teachers (Kynäslahti et al. 2006). The approximately 20 ECTS-credit research methods courses in the master's degree programme form the basis of this approach. In our university, research methods courses include both obligatory qualitative and quantitative methods courses and some optional courses which students can choose in accordance with the methodology of their master's thesis. The aim of the methodology courses is twofold – to equip students with capability to read pedagogical research critically; and to be able to conduct their bachelor's and master's theses with appropriate methods.

Considering the research-based teacher education model has over 30 years of history in Finland, surprisingly little research has been conducted to find out different stakeholders' views of it. One of the few studies is that by Toom et al. (2010), who ran a research project in 2005–2007 to investigate how student teachers ( $n = 278$ ) and teacher educators ( $n = 33$ ) considered research-based teacher education at the University of Helsinki. The results showed that student teachers mainly understood a research-based approach as being related to the research studies. They did not regard this approach as valuable as part of the pedagogical content knowledge of subjects taught in primary school. Nevertheless, the student teachers seemed to appreciate the high level of the master's degree studies and considered it valuable that they had followed extensive academic studies instead of more practical teacher training. With regard to teacher educators, the results indicated that their attitudes towards the research-based approach were positive. Even though both student teachers and teacher educators appear to have an appreciation for research method studies, research skills may not be an equally valued asset in competing for teacher positions. Rautopuro, Tuominen, and Puhakka (2011) conducted a survey among class teachers ( $n = 358$ ) who had graduated from the University of Eastern Finland in the years 2003–2006 and asked what role the topic and the grade of their master's thesis, and the mastery of research methods, had played in their employability after graduation. The results indicated that the topic and the grade of master's thesis and competence in research methods were evaluated as the three least significant factors in the respondents' employability. Notably, only 1% of the class teachers thought that the mastery of research methods had contributed significantly for getting a job, while the most frequently mentioned factors were academic degree (98%), professional competence (95%) and major subject (93% of respondents).

In order to find out how Finnish teacher educators describe their own research-based approach, Tryggvason (2009) conducted a case study that consisted of focus-group interviews of 18 teacher educators from different teacher education units. The results showed that the teacher educators

transmit theoretical and pedagogical aspects by using them in their own teaching. They also aim at educating reflective and enquiring practitioners by using a variety of methods in their own pedagogy so that student teachers become capable of making and justifying their own pedagogical decisions. In conclusion, the few studies conducted thus far show that the research-based approach in Finnish teacher education is appreciated as an important part of the academic degree, but the instrumental value or understanding the role of research studies as important in critical practice remains implicit.

### **The role of practice teaching in class-teacher education**

In Finland, practice teaching is one of the most essential methods for developing student teachers' core competencies. These competencies can be defined as a dynamic combination of knowledge, skills, attitudes, values and personal characteristics that empower teachers to act professionally and appropriately in a situation, and are deployed in a coherent way (Koster and Dengerink 2008). In the University of Eastern Finland, pre-service class teachers' practice teaching is integrated with theoretical studies at all levels of the programme and it is guided by three main principles: first, the practice teaching should be integrated with theoretical pedagogy and multidisciplinary subject studies; second, the practice starts as early as possible; and third, it should equip student teachers with readiness to continue professional growth during their working career.

In the University of Eastern Finland the practice teaching is supervised by university teachers, university training school teachers, or local school teachers, depending on the phase and location of the practice teaching period. There are four modules of practice teaching reaching from the first study year to the final year. The first module of practice teaching aims to orientate the student teachers to observe school life, teacher's work and the pupils from the perspectives of education and educational psychology. The second and third modules focus on teaching of specific subject areas and guiding and evaluating of pupils' learning processes. Finally the fourth module supports student teachers to take a more holistic responsibility in their teaching and to widen their perspective to the entire school community and beyond it. Three out of four practice teaching periods take place in the university practice school and one in a regular municipal school that students can choose freely.

In Finland, like other countries, it is well recognised that student teachers often have difficulties connecting theory with practice (Tryggvason 2009). In order to overcome this obstacle, student teachers in our university are required to reflect on their teaching experiences through compiling portfolios and writing reflective learning logs. These activities are supported with regular feedback by the supervisors. Another way of

promoting the integration between theory and practice is to give student teachers observation tasks or other exercises and learning assignments during the theory courses with an obligation to apply theoretical ideas and concepts to practical situations. The purpose is that the students gradually internalise theoretical concepts and become able to understand what they mean in practice and to use them to describe their own practical teaching experiences. In short, they are supposed to develop an ability to conceptualise and theorise practice, and the other way around, to make theories practical.

### **The Finnish response to external pressures for teacher education**

Teacher education in Finland is not free from outside pressures of the current education system. However, the reaction to pressures for school improvement in general may not have been the same in Finland as in many other countries across the globe. Sahlberg (2007) has stated that Finland has opted for alternative ways to react to the three most common global strategies to improve quality of education: (1) standardisation of education; (2) increased focus on literacy and numeracy; and (3) consequential accountability. Finnish education has not relied on national standard examinations. In primary schools teachers rather give verbal evaluations of students' progress and discuss these evaluations with parents twice a year. In many schools numbered grades are given only starting from the sixth grade. In the place of standardisation the Finnish school system emphasises building on good practices, school-based curriculum development, and the setting of learning targets in schools. This naturally requires that teacher education has to make teacher candidates ready to take initiative on these issues and meet these challenges.

Instead of a strong focus on literacy and numeracy only, the Finnish educational system seems to emphasise a more broad approach, giving more equal value to different aspects of individual growth, creativity, knowledge, and skills. This approach exists also in Finnish teacher education where class teachers not only take theoretical courses and practise teaching of all subjects, but also have many skills courses in arts, music and sports. Teacher educators in their work also strive to give tools for the teacher students to deal with sensitive moral and ethical issues through discussion, drama and role play while at the same time trying to promote their critical and reflective thinking in making pedagogical decisions (Tryggvason 2009).

Instead of consequential accountability, the Finnish school system could better be described as relying on 'intellectual accountability with trust-based professionalism' which is made possible by a 'culture of trust' (Sahlberg 2007). Not only is teachers' work a relatively highly valued profession, there also seems to be a general understanding that teachers

are committed professionals who are there to do their best for the education of children. One consequence of this is that, although in general parents can choose the school where their children go to, by far the majority of elementary-school children attend the neighbourhood school. Only from lower secondary education, starting from grade 7, is there more selection of schools. However, the effect of this selection in grade 7–9 schools is small, as indicated by PISA studies which show that schools produce quite evenly the good-quality outcomes of student achievement at the end of grade 9 (OECD 2007). The between-school variance of achievement and the effect of students' socio-economic background on achievement in Finland have been among the smallest in the OECD countries (Kivirauma and Ruoho 2007). This would not be possible unless there were good-quality teachers teaching in schools across the country, teachers that parents can trust.

A fourth aspect where the Finnish education system has opted for an alternative pathway is in the high emphasis on supporting the learning of pupils who struggle to succeed in schools. The emphasis on supporting the learning of all students has been cited as one factor that the top 10 schools systems have in common (Barber and Mourshed 2007). In Finland the increased need for learning support was an element foreseen in the comprehensive school reform project in the early 1970s which replaced the twin-track system with one unified curriculum for all. The reform coincided with the teacher education reform (1979) and led also into the introduction of a new teacher position in the schools, the part-time special education teacher (Kivirauma and Ruoho 2007). The plan was that by providing in-service training to teachers and by training new special education teachers the education system would be more flexible in responding to the increased diversity of students in the comprehensive school.

The increase in additional support to learning did not stop after the first 30 years of the comprehensive school. We may argue that the school system has reacted to the pressures for guaranteeing the smooth functioning of mainstream education by increasing special education especially sharply during the last 15 years. Today, learning support is provided by schools either through part-time special education or identification of students as having special educational needs, which makes them entitled to more intensive support.

Naturally, these changes have been reflected also in the Finnish teacher education system, especially in the increase in the education of special education teachers, which is provided either as one-year post-degree diploma training or as full master's degree education. According to the statistics of the Ministry of Education and Culture (2011), the average yearly objectives for teacher production from Finnish universities for the next three-year period (2013–2016) are: 1070 (41%) subject teachers (lower and upper secondary education), 900 (35%) primary-school class teachers

(grades 1–6), 500 (19%) special education teachers (grades 1–12) and 130 (5%) guidance counsellors. This means that out of the total capacity of teacher education almost one quarter will be devoted to educating teachers whose primary objective of work is to provide additional support services to students (special education teachers and guidance counsellors).

### **Challenge of the inclusive education agenda for Finnish teacher education**

In recent years, several interest groups have expressed their views for reforming Finnish teacher education to respond better to the future challenges of schools and the wider society. There have been demands that, for example, entrepreneurship education or media skills and using information and communications technology in teaching should be made compulsory modules of all teacher education programmes (Federation of Finnish Enterprises 2006; Ubiquitous Information Society Advisory Board 2010). Regardless of how important these other agendas may be, in this article we concentrate on the implications that inclusive education has on the future of Finnish teacher education.

Today, at a global level, inclusive education is often understood as a broad concept relating to all groups of children excluded from school (United Nations Educational, Scientific and Cultural Organisation [UNESCO] 2009). In Finland, however, inclusive education has been commonly seen more as a pedagogical than an ideological question and it usually refers only to educating students with special educational needs (SEN) in mainstream settings. One example of this Finnish pragmatism is that the municipalities, which are responsible for running the schools in Finland, have often claimed to be aiming towards inclusion while at the same time maintaining separate special education services for some students. As a result, Finnish comprehensive schools have possibly the world's highest proportion of SEN students (8.5%) and students receiving part-time special education (23.3%) (Statistics Finland 2011). Nevertheless, during the last few years, there has been a systematic reform for moving Finnish schools towards a more inclusive direction through a new Special Education Strategy (Ministry of Education and Culture 2007), the Revised Act on Basic Education (Parliament of Finland 2010) and the updated National Curriculum Guidelines (National Board of Education 2010).

Perhaps the biggest change the aforementioned documents have brought is that schools are now allowed to provide intensified learning support for individual students only after showing evidence that they have taken measures to change the mainstream class environment so that all students can learn. Noticeably, under the new stipulation it is mainstream teachers who have the chief responsibility of providing this so-called universal support in classrooms. The new law has also increased teachers' role in deciding whether a student is in need of special support,

while in the past, such statements were routinely requested from either a psychologist or a medical doctor.

As described previously, the context of inclusive and special education in Finland has evolved significantly in recent years. This has considerable implications for the teacher education in our country. In the future, all teachers must be capable of dealing with a wide range of student diversity in their classrooms when most students with SEN are expected to receive their education in mainstream settings. What then, are the core competences that the initial teacher education in Finland should address, in order to overcome the challenges posed by inclusive education? Some potential answers to this question can be found from the results of our own large-scale research project, funded by the National Board of Education.

Among other activities within our project, we have collected questionnaire data of over 800 teachers from large, middle-sized and small municipalities. One main finding of this survey has been that the teachers' self-efficacy in collaboration (i.e. how good the teachers themselves think they are in collaborating with parents, teachers and other professionals) has a strong positive correlation with their attitudes towards inclusive education (Savolainen et al. 2012). To put it simply, this means that those teachers who see themselves as capable of collaborating appear to hold less negative perceptions towards inclusion, and vice versa. In light of this result, it seems that developing collaboration skills should be one overarching theme of all teacher education programmes.

Today's pre-service teachers will most likely spend their careers in inclusive schools, where the ability to cooperate with parents, colleagues and other professionals may be even more crucial than other more traditional core competencies such as instructional skills, effective classroom management and subject knowledge. Therefore, the future curricula of Finnish teacher education institutions should contain specific courses concentrating on the principles of productive cooperation. Having said this, we do not mean that arranging separate courses on collaboration would be a sufficient measure to solve the problem. On the contrary, we are of the opinion that in order to prepare teachers for inclusive schools, one of the initiatives should be making the teacher education itself more inclusive. In practice, this means that the future special education teachers', class teachers', and subject teachers' training programmes should have much more shared elements than they now have. As Kozleski and Waitoller (2010) emphasise, unnecessary separation of different teacher education programmes will easily lead to underdeveloped cooperation and co-teaching skills in addition to poor understanding of the capabilities educators with different specialisation bring to learning situations.

An important aspect of collaboration is sharing experiences and offering possibilities for colleagues to share their views on teaching and

learning processes taking place in and outside the classroom. This means that collaboration in its wider sense extends to teaching all children and is not limited, for example, to mainstream teachers consulting the special education teachers on teaching a student who had difficulties in learning. However, in many Finnish universities, including our own, too many courses are currently held separately for pre-service teachers with different specialisation with no other reason than tradition for such an arrangement. Also, the special education courses given to all teachers emphasise dealing with students that have difficulties in learning or behaviour. There's no question that all teachers need this information, but it may also contribute counterproductively to the thinking that mainstream teachers' task is to identify these children and then leave their teaching to the specialist. One way forward from this approach would be to require collaboration in the practice teaching modules. For example, it could be fruitful to send the teacher candidates to the schools in small groups with both mainstream and special education majors. In these heterogeneous groups the teacher trainees would then have a natural opportunity to practise team planning, co-teaching, consultation of colleagues, and other inclusive practices that should be part of the everyday life in future Finnish schools. In other countries, for instance in Scotland, combining different types of teacher candidates for common courses has produced promising results in promoting inclusive schools (Florian, Young, and Rouse 2010).

### **Conclusion**

The Finnish school system has not followed the same mainstream path to increase standards as most other school systems in the world but has, nevertheless, produced good achievement outcomes. Some characteristics of teacher education in Finland are different from the situation in most developed countries, one of them being that teacher education is very popular among young students and entry into teacher education is highly competitive. Thus, in teacher education we have the possibility to try to select the best among good candidates to become future teachers. This is done by a selection mechanism that measures both the academic abilities but also the personal suitability and motivation of a candidate for teaching. As a consequence of this, student teachers' study progression and graduation rates are among the best of most universities.

Finnish teacher education includes quite a strong emphasis on both teaching practice and academic research studies. Although combining research and practice remains a challenge for Finnish teacher education, the strong research orientation is appreciated, although perhaps more as an indicator of academic standards rather than something that will be immediately useful in teachers' work. The minimum requirement of a

master's degree for all teachers in compulsory education has nevertheless had an undoubted role in raising the prestige of the teacher profession.

Although the nature and role of teacher education can be cited as one reason behind the success of the Finnish schools system in international achievement comparisons (PISA), this does not mean that a similar result would be achieved by copying the Finnish system into another country. Some critics have even seen the Finnish miracle as a paradox in that, 'politically and pedagogically progressive comprehensive school reform is apparently being implemented in Finland by politically and pedagogically rather conservative teachers' (Simola 2005, 466). We have argued in this article that the extensive learning support system may have a role in this paradox, a role which may at the same time be a reason for our current success and a challenge for the future.

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