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THE FINISH TEACHER EDUCATION. TEACHERS FOR EQUITY AND PROFESSIONAL AUTONOMY

*La formación del profesorado en Finlandia. Profesores
para la autonomía y la equidad profesional*

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ABSTRACT

The aim of the article is to describe the major features of the Finnish educational system and Finnish teacher education. The analysis is based on national core curricula and other official documents from the educational system as well as on recent research literature regarding education in Finland. During the last 30 years, Finland has built an education system with two visions: equity and lifelong learning (LLL). Since 1979, all teachers have been required to have five years education, consisting of both MA and BA degrees (degrees of the Bologna Process in the European Higher Education Area). The main principle of Finnish teacher education is to educate teachers as high-quality autonomous professionals with an emphasis on strengthening the following areas: creating a research-based professional culture in which each teacher possesses critical scientific literacy; establishing the social and moral code of the teaching profession; integrating theory and practice; and educating teachers to be responsible for local curriculum design and students' assessments. Teacher education attracts highly talented applicants as many students are motivated to become teachers. However, Finnish teacher education also faces the following challenges: developing a teaching culture which incorporates more active learning; enabling teachers to develop

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greater competences in collaborating in school communities and with partners outside the school; strengthening teachers' competences to teach in a multicultural school; and supporting teachers to employ new pedagogical approaches to teach information and communication technology. The major aim of the Finnish teacher education is that teachers take an active role in raising serious questions about what they teach, how they teach, and the larger goals for which they are striving.

KEY WORDS: Teacher education; Autonomy professional; National curricula; Finish teacher education; Teaching profession.

RESUMEN

El objetivo del artículo es describir las principales características del sistema educativo finés y de la formación del profesorado en Finlandia. El análisis se basa en el currículo oficial, en otros documentos oficiales del sistema educativo, así como en la literatura actual relativa a la educación en Finlandia. A lo largo de los últimos treinta años, Finlandia ha desarrollado un sistema educativo con dos finalidades: equidad y aprendizaje a lo largo de la vida. Desde el año 1979, todos los docentes han tenido que cursar cinco años de formación, consistentes en un grado y un máster (de acuerdo con el Proceso de Bolonia del Espacio Europeo de Educación Superior). El principal objetivo de la formación del profesorado finés es que forma a sus profesores como profesionales altamente autónomos con un especial énfasis en reforzar las siguientes áreas: crear una cultura profesional basada en la investigación donde cada docente tiene un amplio conocimiento de la literatura científica; establecer un código social y moral sobre la profesión docente; integrar la teoría y la práctica; y formar a los profesores para que sean responsables del diseño curricular y la evaluación de sus estudiantes. La formación del profesorado atrae a solicitantes de gran talento, puesto que muchos estudiantes quieren ser profesores. Sin embargo, la formación del profesorado en Finlandia se enfrenta también a los siguientes desafíos: desarrollar una cultura docente que incorpore un aprendizaje más activo; favorecer que los profesores desarrollen mayores competencias para colaborar en comunidades escolares y con instancias fuera de la escuela; fortalecer las competencias del profesorado para enseñar en una escuela multicultural; y apoyar a los docentes en el desarrollo de nuevos enfoques pedagógicos para la enseñanza de las tecnologías de la información y la comunicación. El principal objetivo de la formación docente en Finlandia es que los profesores tomen un rol activo en el planteamiento de cuestiones relacionadas con qué es lo que enseñan, cómo lo enseñan, y por qué fines a largo plazo están trabajando.

PALABRAS CLAVE: Formación del profesorado; Autonomía profesional; Currículo nacional; Formación del profesorado finés; Profesión docente.

INTRODUCCIÓN

Equity and equality have been discussed in countless educational forums (e.g. OECD, 2012; UNESCO, 2012; DARLING-HAMMOND, 2010). These terms are often used in a variety of ways so that their meaning and message vary. The notion of equality has been used in a way that suggests

everyone should be treated the same, regardless of their background. All human beings have basic rights and should be free from facing discrimination based on gender, age, religion, or social and ethnic background. However, having equal rights does not ensure that people have the capacity to use their common rights. The fact that a people have an “equal right” to education does not mean that they all have real opportunities to access education or that they have the capacity to seek, find, or afford the education they need. Every society has groups or individuals who cannot take advantage of their equal right to education due to various cultural, historical, or social reasons. Although the principle of equity has stronger advocates in the context of Finnish educational policy making, both concepts of equality and equity can be observed in the Finnish educational system.

According to various education researchers (SCHLEICHER, 2005; VÄLIJÄRVI, 2004; SIMOLA, 2005; LAUKKANEN, 2006; NIEMI and JAKKU-SIHVONEN, 2006), since the late 1960s Finnish educational policy has purposefully aimed at achieving equity in education. This emphasis is considered one of the main reasons for good learning outcomes in Finland. Laukkanen (2006) describes that Finland has built an education system that features uniformity-free education, free school meals, and special needs education. The principle of inclusion has been an important guideline in the development of Finland’s education system. In 1968, it was decided that the parallel school system should be replaced by a national nine-year basic education rooted in the ideology of comprehensive education. When the Finnish Government delivered its bill to Parliament in 1967, one of the arguments for the common nine-year education for all students was that it was too early to judge individual capacities at the age of eleven or twelve. Finnish basic education has been logically developed toward a comprehensive model, which guarantees everybody equal opportunities in education irrespective of sex, social status, ethnic group, etc., as outlined in the Finnish constitution. However, many structural and cultural changes have been needed to ensure that such equal opportunities can actually be enjoyed by all students.

In this article the Finnish educational system is examined from the perspectives of culture, society, and the individual. In Habermas’ theory of communicative action (HABERMAS, 1987; CARR and KEMMIS, 1986), these three levels are regarded as the structural components of the “lifeworld.” Each of these levels plays a unique role in the process of social and cultural reproduction and transformation. Furthermore, processes at the social, cultural, and individual levels are all interrelated. The social level means social structures in communities and, in a larger sense, in society. The cultural level consists of social practices/activities which are grounded in knowledge and values. The individual level means the experiences of individual learners in the context of learning processes as well as their capacity to learn.

Culture includes interpretive frameworks, facts, norms, and experiences. These are all socially constructed. We do not have knowledge without tradition. Furthermore, we participate continuously in reproducing and transforming traditions. Our culture is the stock of knowledge from which participants in communication supply themselves with interpretations as they develop an understanding about something in the world (NIEMI and KEMMIS, 1999; HABERMAS, 1987: 138). Teachers’ professional work, status, and autonomy in schools, as well as teacher education and the learning culture in schools, are all manifestations of culture. These aspects have been formed in cultural reproduction processes and are also part of these processes. Changing culture

often requires that people who are part of these processes see their actions from a new perspective and that they set new goals for their work. Teachers and teacher education in the Finnish context have been undergoing change processes for more than three decades and continue to experience such change when facing new challenges. Teachers' work has changed from a regulated and controlled system toward a higher level of professional autonomy. This change has been possible because social, cultural and individual components of the lifeworld have been interrelated and set new goals for teaching and learning.

Cultural changes have been supported by those forces coming from the level of society. The concept of society in Habermas' theory includes the relationships between different organizational subsystems. The institutional structure, administration, power, control, and cooperation between different partners are among the phenomena of interest in analyses at the level of society. In the context of Finnish education, this level has encompassed significant changes in the entire educational system, including a transformation of the structures of teacher education; a shift from a centralized system to a decentralized system; increased power for local educational providers; and the establishment of an evaluation system that empowers schools and teachers.

Changes have also occurred in those processes related to the level of the individual. At the level of the individual, the most important skills and competences are those which empower a person to be capable of speaking and acting, thereby putting him/her in a position to develop his/her self-concept and assert his/her own identity (HABERMAS, 1987: 138). In this article there are two viewpoints regarding the level of the individual: teachers' competence to work as autonomous professionals and the lifelong learning (LLL) skills of all learners. Learning to learn, among other skills needed for LLL, has become one of the most important aims for each student at all levels of the Finnish educational system. The Finnish system's goal of promoting LLL skills for all students is set in the national core curricula. Furthermore, the growth of each teacher has also become more important during the last ten years as new meta-knowledge of teaching and learning has emerged. As professionals, teachers themselves have to learn to be learners in their profession. If teaching is regarded as an ethical profession, the development of teachers' commitment and responsibility are important aims for teacher education.

This article introduces what changes have been introduced at the levels of culture, society, and the individual. The article begins by examining how structures in the education system are supporting students' LLL skills and personal growth. It also analyzes how teacher education is providing teachers with the skills needed in a profession with high standards. The latter part of the article proposes what kinds of cultural changes are still needed when education is analyzed from the perspective of the future.

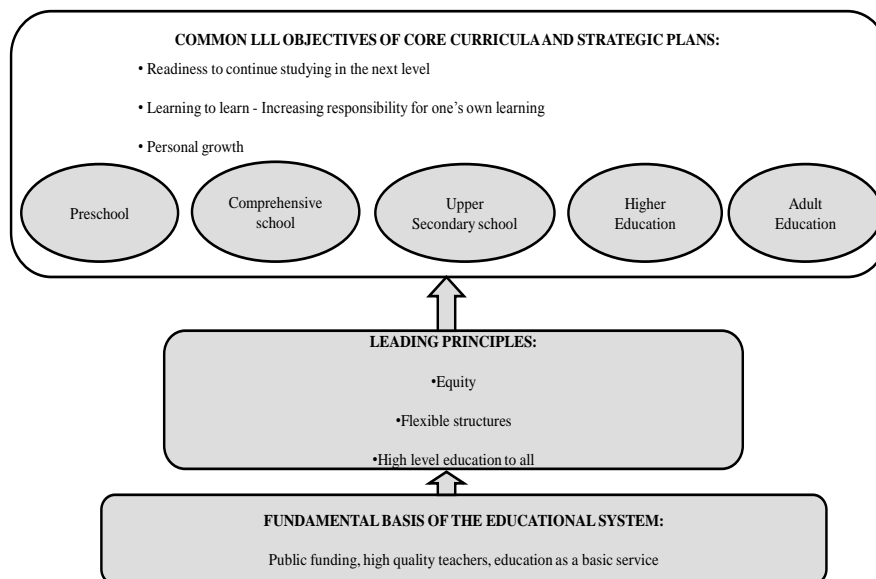
1. THE STRUCTURE AND AIMS OF THE EDUCATIONAL SYSTEM IN FINLAND

In Finland (population 5.4 million) education is a public service. Finland has built up in the last 30 years an education system with two important visions throughout the system: equity and life-long learning. At a basic education level these aims consist of a comprehensive school model to all, free education, free school meals and investments in special needs education.

Equity has been a leading principle of Finnish education policy since late 60's and it covers the whole educational system from early education until higher education as well as adult education (NIEMI and ISOPAHKALA-BOURET, 2012; SAHLBERG, 2011). This objective can be seen in every governmental programs since twenty years even though there have been different political parties in the government (e.g. Finnish Government, 2011, June). It is included also in national core curricula of all levels in the educational system. The principle entails that everyone need sufficient learning skills for life-long learning and opportunities to educate and develop themselves in different learning environments throughout their lifespan Niemi and Isopahkala-Bouret's study (2012) has found out that the curricula and strategic plans of all levels of the educational system have as common objectives: a readiness to continue studying in the next level, learning to learn consisting of increasing responsibility for one's own learning, and learners' personal growth. These LLL objectives are important within formal education. The same qualities are also needed when new technologies change the internal and external processes of knowledge creation in informal learning contexts, like work organizations.

Since the late 1960s Finnish basic education has been logically developed towards the comprehensive school model, which guarantees everybody equal opportunities in education irrespective of sex, social status, ethnic group, etc., as outlined in the constitution. According to education researchers (SCHLEICHER, 2005; VÄLIJÄRVI, 2004; SIMOLA, 2005; LAUKKANEN, 2006; NIEMI and JAKKU-SIHVONEN, 2006), the educational policy has purposefully aimed at equity in education, which is the main reason for its good learning outcomes. The principle of inclusion has been an important guideline. Since the 1980s, all Finnish students in basic education began to have the same goals in mathematics and foreign languages. In so doing, the Finnish Government was realistic. In reality, these goals are attained by individuals with different levels of success. However, with extra support for the weakest students, we can considerably raise the performance of the whole age group.

Figure 1. The leading principles in the Finnish educational policy



Source: Niemi and Isopahkala-Bouret (2012).

Comprehensive school. The national core curriculum for comprehensive schools provides the main objectives for the learning of different subject matter and aims for the generic skills needed in LLL (NBE, 2011; CURRICULUM, 2004). The core curriculum emphasizes that the main aim is to awaken a desire for lifelong learning (NBE, 2011; CURRICULUM 2004: 6). The objectives related to LLL are the following (NBE, 2011; CURRICULUM 2004: 8):

- To steer pupils to develop their abilities and to take responsibility for their learning, to assess it, and seek feedback to reflect on their own learning behavior.
- To facilitate pupils becoming aware of their own learning and to help them to find opportunities to affect it.
- To provide opportunities for pupils to develop their own learning strategies and apply them in new situations.

Pupils must learn skills needed for their own learning at school and for their future learning outside of school. Learning skills are generic such as thinking and problem solving skills, collaboration and interaction skills, self-knowledge and responsibility, and participatory and active citizenship skills. An important LLL objective in the core curriculum is to extend learning into different informal learning environments, including the new technology-based environments (NBE, 2011; Curriculum 2004: 18).

1.1. Basic education lasts for nine years

The age group contains 60,000 pupils. Children start this compulsory schooling at the age of 7. In the comprehensive schools, class teachers are mainly responsible for grades 1-6, and most of the subjects are taught by subject teachers in grades 7-9 (also called lower secondary school). In basic education, students get all their study materials and one warm lunch meal for free from the school. Preschool education is offered for all 6-year-olds. It has been a subjective right for families since August 2000. Even though it is not obligatory almost the entire age cohort, about 96% of the age group, participate in preschool education. After basic education students continue to upper secondary education which consists of an academically (3 years high school) or vocational oriented education, both branches leading to higher education. The educational services at the preschool, basic education and upper secondary level are provided by local authorities, which are municipalities or consortiums of municipalities. They have councils for strategic planning of educational issues and are responsible for the quality of education in local schools. Municipalities (local authorities) and their schools write their own curricula on the basis of the national core curriculum. Local needs can be taken into consideration in these curricula. Schools can have their own profiles such as e.g., science or music education.

One of the aims of the Finnish education system is to have an educational infrastructure that is devoid of so-called “dead-ends”. The compulsory education is the nine years of comprehensive school, but the national aim it is to keep all children for at least 12 years in connection with the educational system and to provide after that several routes for life-long learning. The aim of the educational system is to enable an individual's education to continue. Nearly 100% of each age cohort completes the 9 years of comprehensive schooling. Ninety-four per cent of those who finish

the 9th grade of comprehensive school continue their studies in the same year either in upper secondary general school or upper secondary level vocational education (STATISTICS FINLAND, 2009). The six per cent of the age cohort, who do not continue their studies, are in danger of exclusion. Municipalities have launched various programs to keep them in touch with education and learning so that they will be able to find pathways to further education. Without additional education they are in danger of being excluded from the labor market (NIEMI, 2012: 25)

An inclusion policy and special needs education are extremely important in promoting all students' right to learn. The basic principle is that all students with learning difficulties must be given help and support to overcome these difficulties. They can have extra tuition hours or/and special needs instruction integrated into their own class, and temporary or more permanent help in special classes or groups. In each school there is a multi-professional student care group to which a principal, teachers as well as special need teachers, social workers, nurse belong. According to a new law passed in 2011, every teacher is responsible to identify students' learning difficulties at the earliest stage possible (NBE, 2012). This widens teachers' and local level responsibility to seek solutions for supporting these students. Inclusion has been the main principle in the last decade and this new law strengthens this trend.

The principals of Finnish schools have an important role to play (JAKKU-SIHVONEN, 2006: 13). They are qualified teachers with extra studies in management and leadership of school organizations. They have administrative tasks but they are also pedagogical leaders. Most of them have at least a small teaching load in order to keep in touch with grass root level issues. The aims related to equity and the enablement of all people's development through learning and education set special requirements on teachers, the teaching profession and teacher studies at universities. All teachers are also considered leaders in their own special areas and are expected to make active contributions to curriculum development.

2. THE STRUCTURE OF THE FINNISH TEACHER EDUCATION

In Finland, the responsibility for providing education to prospective teachers in primary and secondary schools has been transferred to universities. Since 1974, teacher education for all teachers in basic education has been arranged at universities.

According to decrees issued in 1979 and 1995, all teachers had to obtain a Master's degree for teacher qualification. As part of the Bologna process, teacher education in Finland moved to a two-tier degree system on 1 August 2005. In terms of the Bologna process, the degree of qualified teachers is equivalent of a second cycle degree in the European higher education area (NIEMI and JAKKU-SIHVONEN, 2006). The combination of a three-year Bachelor's degree and a two-year Master's degree in appropriate subjects qualifies teachers to teach subjects in primary and secondary schools or general subjects in vocational institutions. Since moving to the Bologna process all teachers must attain a Master's degree (BA 180 + MA 120 = 300 ECTS; 1 ECTS is about 25–28 hours' work). Teachers for vocational schools study their vocational subjects in higher education institutions (e.g. technological universities), which are specialized in vocational content

areas. All other teachers are educated in comprehensive universities (JAKKU-SIHVONEN and NIEMI, 2007).

The main elements of all teacher education curricula consist of the following studies (NIEMI and JAKKU-SIHVONEN 2006: 35):

- Academic disciplines. These can be whatever disciplines are taught in schools or educational institutions or in science of education. Academic studies can be a major or minors depending on the qualification being sought.
- Class teachers have a major in educational sciences and minors in other disciplines. Secondary school teachers have a major in subject matter disciplines and advanced minor in pedagogical studies.
- Research studies consist of methodological studies, a BA thesis and an MA thesis
- Pedagogical studies (min. 60 ECTS) are obligatory for all teachers. They also include teaching practice.
- Communication, language and ICT studies are obligatory.
- The preparation of a personal study plan has been a new element in university studies in Finland since 2005. Its main function is to guide students to develop their own effective programs and career plans, and to tutor them in achieving their goals.
- Optional studies may cover a variety of different courses through which students seek to profile their studies and qualifications.

2.1. Pedagogical Studies

The traditional distinction between class teachers and subject teachers has been retained but the structures of the respective degree programs allow them to take very flexible routes to include both in the same program or permit later qualification in either direction. The pedagogical studies (60 ECTS) are obligatory for qualification as a teacher and are approximately the same for both primary and secondary teachers as well as vocational and adult education teachers. These studies give a formal pedagogical qualification to teachers at all levels in the Finnish educational system regardless of the programme in which they are provided. According to legislation, pedagogical studies must be studies in the science of education with an emphasis on didactics. The pedagogical studies can be part of the degree studies, or they can be taken separately after completion of a Master's degree.

Universities have a high degree of autonomy in designing their curricula. Therefore, no detailed "curriculum of teacher education" covering all universities in Finland can be presented. However, there are some principles and general outlines followed by all institutions of teacher education. These are partly due to recommendations by the Ministry of Education and Culture, partly by national working groups e.g. related to teacher education reforms such as the Bologna and partly to an agreement of the Deans of the Faculties of Education and the Directors of the Departments of Teacher Education who have regular contact with each other and with the Ministry. The Ministry of Education and Culture has full confidence in the departments and faculties involved in teacher education (MEISALO, 2007: 163).

3. THE MAIN PRINCIPLES OF THE FINNISH TEACHER EDUCATION

3.1. A Research-Based Approach as a Main Guideline

For decades, the Finnish orientation toward teacher education has committed itself to the development of a research-based professional culture (NIEMI and JAKKU-SIHVONEN, 2011; JAKKU-SIHVONEN and NIEMI, 2006). The critical scientific literacy of teachers and their ability to use research methods are considered to be crucial. The aim of these studies is to train students to find and analyze problems they may expect to face in their future work. Research studies provide students with an opportunity to complete an authentic project, in which students must formulate a research question in an educational field, be able to search independently for information and data, elaborate on them in the context of recent research in the area, and synthesize the results in the form of a written thesis. They learn to study actively and to internalize the attitude of researchers as they do their work (NIEMI, 2011).

Professors have the responsibility to guide students in the research-oriented aspects of their education. The main object of this guidance is not the completion of the Bachelor and Master thesis itself, but actually to engage students to become active participants of education society. In this aspect of the degree program, the processes of active working and thinking are integrated in various complex and sometimes unexpected ways. The aim of the guiding process is to help student to discover and tap his/her own intellectual resources and to enable him/her fully to utilize the resources of the study group in which he/she is working (NUMMENMAA and LAUTAMATTI, 2004: 117).

The goal of Finnish TE is to equip teachers with research-based knowledge and with skills and methods for developing teaching, cooperating at school and communicating with parents and other stakeholders. The leading guidelines are (NIEMI and JAKKU-SIHVONEN, 2006: 40):

- Teachers need a deep knowledge of the most recent advances of research in the subjects they teach. In addition, they need to be familiar with the latest research concerning teaching and learning. Interdisciplinary research on subject content knowledge and pedagogical content knowledge provides the foundation for developing teaching methods that can be adapted to suit different learners.
- The aim is that teachers internalize a research-orientated attitude towards their work. This means that teachers learn to take an analytical and open-minded approach to their work, that they draw conclusions based on their observations, and experiences and that they develop their teaching and learning environments in a systematic way.

3.2. The Social and Moral Code of the Teaching Profession

Teachers' work is context-bound, depending on learner age level, cultural conditions, available resources and the contents that they are mediating to learners. Teachers and teacher education are related to national goals and purposes. The welfare and economy of the society are

related to the quality of educational outcomes, which are associated with teachers' competences. Besides being guided by national and local community-based goals, teachers' work also has more generic aims (TOOM and HUSU, 2012). Teachers open doors and windows to cultural enrichment and help people to understand other human beings and their cultural contexts. Teachers are key actors in promoting human rights, justice and democracy in a global world (e.g. ALONI, 2002; NIEMI, 2010). In Finland the school law contains values that promote these aims. Teachers are expected to implement them in their daily work.

As an initiative of the national Teacher Union an ethical council for the teaching profession was established in 2000. It is an independent organ and its main purpose is to advance the ethical nature of the teaching profession. The first ethical principles were published in 2000. The aim of the Ethical Council is to promote teachers' ethical awareness. Also teacher education programs emphasize teachers' social and moral responsibility. A survey in 2010 showed that Finnish student teachers are committed to the teaching profession and be aware of the ethical bases of teaching (NIEMI, 2011).

3.3. Integration of Theory and Practice

Teachers' pedagogical studies include supervised teaching practice (approx. 20 ECTS). Teaching practice is integrated with all levels of TE time. It is supervised by university teachers, university training school teachers or local school teachers depending on the phase of practice (JYRHÄMÄ, 2006).

The aim of guided practical studies is to support students in their efforts to acquire professional skills in researching, developing and evaluating teaching and learning processes. In addition, teacher students should be able to reflect critically on their own practices and social skills in teaching and learning situations. During their supervised practicums student teachers meet pupils and students from various social backgrounds and psychological orientations and have opportunities to teach them according to the curriculum.

The main principle is that practice should start as early as possible and support student teachers' growth towards expertise. At the beginning it guides student teachers to observe school life and the pupils from an educational perspective, then it focuses on specific subject areas and pupils' learning processes. Finally it supports student teachers as they take holistic responsibility in their teaching and schools. This period can be tightly connected with their research studies and master's dissertation.

Universities' teacher training schools (so-called "Normal schools") play a crucial role in the Finnish teacher education. The Normal Schools are state schools and their teachers have a different status than teachers in other schools. The teachers have a dual role: on one hand they teach pupils and on the other, they supervise and mentor student teachers. Many of the Normal School teachers are active in research and development and are members of teams that produce learning materials for schools.

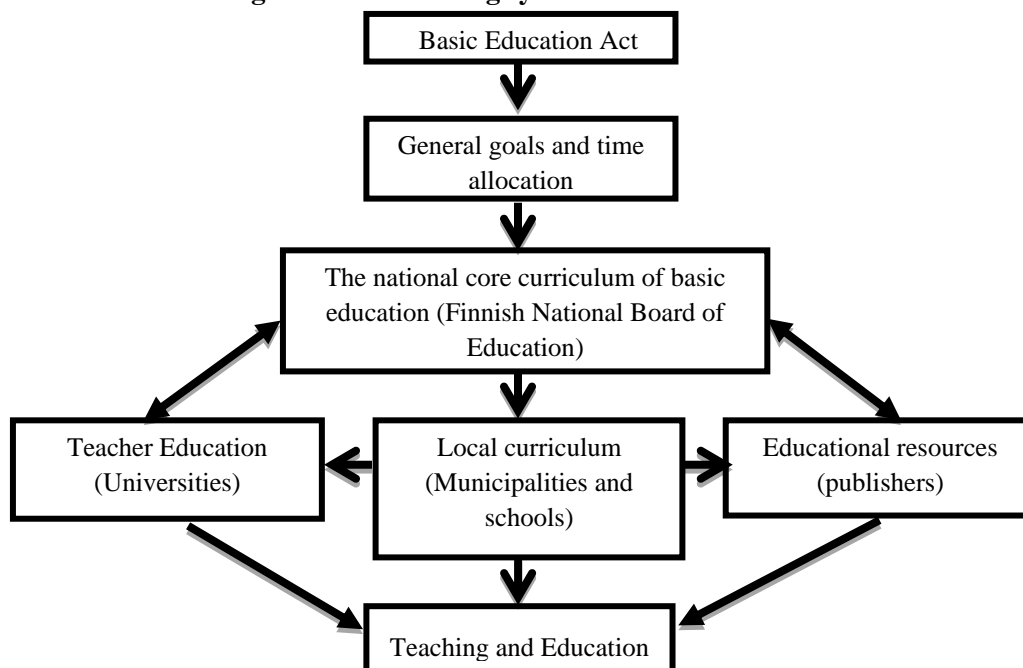
There is also frequent critique based on the demand of having at least a substantial part of the teaching practice in more typical schools. Actually, parallel to the Normal Schools there have been so-called field schools with an important contribution to the capacity and volume of teacher education in the times of high demand of qualified teachers (MEISALO, 2007: 167).

3.4. Educating teachers to be responsible for local curriculum design

Finland has balanced between a centralized and decentralized administration of education. At the beginning, comprehensive schools were very centralized, but in 1985 the municipalities' freedom and responsibility was increased. The municipalities and, ultimately, the schools set up their own curricula on the basis of the national core curriculum. Since 1999 legislation has strengthened decentralization as the mainstream. Providers of education - meaning municipalities, coalitions between municipalities and private foundations - have been given wide freedom when it comes to writing their local curricula.

The local curricula have to determine the teaching and educational practices of the schools concerned. Teachers play an important role in local curriculum design. The curricula must be drawn up in such a way that they take into account the schools' operating environments, local value choices and special resources. Halinen and Järvinen (2008) point that that local decision-making is also seen as a means of increasing local officials' and teachers' commitment to the implementation of the curriculum. Their active involvement in the process and therefore their ownership of the curriculum is reinforced by the autonomy and freedom they are afforded. Still, the local curricula have to be drawn up in accordance with the National Core Curriculum for both comprehensive and upper secondary schools.

In Figure 2, Vitikka *et al.* (2012) have described relationships between different actors when developing teaching and learning in schools. We may see that the national core curriculum gives frames but quality of education depends of how teacher education in universities and local curriculum design are promoting the main values and principles of the core curriculum at a local level. Teaching and learning in schools also depends on how local municipalities take their responsibility to ensure learning environments of high standards, and how resources, such as textbooks and other learning materials are available in teaching and learning. Teachers have professional autonomy to decide what kinds of learning materials they use in their teaching. The aim of teacher education is that teachers have critical understanding how knowledge is created in learning processes and they use different materials in order to promote students' learning.

Figure 2. The steering system of basic education

Source: Vitikka et al. 2012.

3.5. Educating teachers for students' assessments

The Finnish education system has received attention from all over the world because of the great success of Finnish 15-year-olds in the OECD's PISA surveys in 2000, 2003, 2006 and 2009 (e.g. OECD, 2003; 2006; 2010). The knowledge and skills of Finns in problem solving, scientific, mathematical and reading literacy are representative of the highest level of international standards. Only a very few Finnish students are in the lowest PISA categories. Likewise, the between schools differences of learning outcomes are small.

A quest for good learning outcomes is on the educational agenda of many countries. Globally, much controversy exists over what is the best way to use assessment as a tool to achieve high learning outcomes. Some countries have chosen standardized testing, which stresses competition between schools and focuses on measurable performances.

The Finnish choice has been enhancement-led evaluation at all levels of education (NIEMI and LAVONEN, 2012). The assessment of outcomes is regarded as an important tool to improve education (KUMPULAINEN and LANKINEN, 2012). Teachers have freedom to decide what kinds of assessment methods they use for supporting student learning. The enhancement-led assessment has consequences to teacher education. Teachers must be educated to take their responsibility to use diagnostic, formative and summative methods for promoting students' growth and development. This means that pedagogical studies provide student teachers with competences how use different kinds of assessment methods. Teachers need to know what are frames and guidelines of the Finnish educational evaluation policy and how they can support different learners through assessments.

In Finland there is no inspection system to control the educational arrangements at schools or institutions. Instead of inspection, there is an evaluation system. For basic education, following up whether schools have reached the national goals for learning outcomes set in the national core curriculum for basic education is done by national sample based assessments. Upper secondary schools have their own statute based end examination systems. Since the mid 1990s, the Finnish National Board of Education has conducted national assessments of learning outcomes, mostly in the 9th grade of basic education. Regular assessments have been carried out in mathematics, the students' mother tongue (either Finnish or Swedish) and literature, and occasionally in other subjects as well. National assessments produce information about the quality and results of education and training in relation to objectives stated in the national core curricula. These assessments are sample based and thus do not cover the whole age group. This is because the results are used for the development of education.

The purpose is to enhance the use of evaluation for formative purposes. All schools in a sample of an assessment receive an individual feedback report. These reports are delivered to schools as soon as possible after the assessment data has been collected, as fresh results are more interesting for schools than results that are months old. The aim is that feedback has been received as soon as two months after the data was collected (LAUKKANEN, 2006 and 2008). Teachers have also many national networks and discipline-based associations and they produce informal benchmarking opportunities. They provide jointly created test batteries and other tools for promoting students' learning. The Finnish Educational Evaluation Council (FEEC, 2012) is responsible for national thematic evaluations and these reviews are used for improvements at national and local levels.

4. RECENT AND FUTURE CHALLENGES OF THE FINNISH TEACHER EDUCATION

4.1. Strengths that should be continue

Finland has become a successful educational country. The Finnish teacher education have been evaluated and investigated several times in the last 20 years (NIEMI and JAKKU-SIHVONEN, 2006). Many strengths can be found in evaluations and studies: Teacher education attract high talented applicants and students are motivated to become teachers. Usually less than one forth from applicants can be accepted into universities (KANSANEN, 2003; NIEMI and JAKKU-SIHVONEN, 2011). Teacher education, especially class teacher education, is one of the most desired study programs. Because of the large numbers of applicants for class teacher education, only 10-15% highly motivated and talented applicants can be accepted (in Finland, there is national quotas for different disciplines and degree programs). Also, secondary teacher education has become more and more popular in most subjects. In general, admission to the university is difficult for young people wishing to pursue a career as a subject teacher as only a small percentage of the applicants are granted admission to the faculties of their choosing. This is true particularly for biological subjects, but there have been recently problems in recruiting talented students in mathematics, physics, chemistry and some foreign languages. There have been many efforts to attract new students and this has resulted in a change from the "elimination approach" to a "recruitment approach" in the organization of the student admission programs of the faculties.

These efforts include utmost flexibility in the timing of studies and arranging entrance tests in some faculties occasionally as often as three times a year (MEISALO, 2007: 172). Teacher education programs are effective and there is no real drop out problem. There is also a high retention in the teaching profession. Usually only 10-15 % of teachers leave their teaching posts in schools and if so, in most cases they move to educational fields that are closely related to teaching, such as educational administration or educational publishing companies.

Some of recent studies (NIEMI, 2011) can be summarized in the following way: teacher education students had achieved good skills in planning teaching and curriculum. They were capable of using different teaching methods. They were aware of their own teaching philosophy and their responsibilities as professionals and life-long learners. They consider the research component of TE valuable to their independent and critical thinking. They were very engaged in studies.

4.2. Towards more collaboration and active learning

Even though the Finnish pre-service teacher education seems to function very well and to be effective in providing skills to work as independent professionals there are many areas that should be improved.

There has been criticism that Finnish teachers are not using active learning methods (e.g. SIMOLA 2005; NIEMI 2002). Norris *et al.* (1996) assessed that teachers do not use very innovative teaching approaches in general and especially in mathematics education is rather traditional in Finnish classrooms. Krzywacki, Pehkonen and Laine, (2012: 125) have reflected on this issue and they present that although, there is a good deal of conservatism in the teaching methods, focusing on this alone does not give the whole truth. In mathematics, teaching is mainly teacher-centred frontal teaching of the whole group, but nevertheless, pupils have an active role and they are highly involved. Finnish teachers avoid being too hasty and want to guarantee learning opportunities for their pupils. They try to avoid 'educational entertainment'. Krzywacki, Pehkonen and Laine (2012: 125) also emphasize. "However, teachers do adopt new ideas and methods that they find meaningful and useful. For example, some teachers have a special mathematics lesson with problem solving or project work once a week".

In the Finnish educational system we can see moving towards more an active and dynamic knowledge concept during the last 30 years. Ideals of constructivist as well as socio-constructivist learning concepts are included in national core curricula (NBE, 1994; 2004). Because there is only a national core curriculum providing broad frames it allow a lot of freedom to local levels to use different materials and methods in teaching. Krzywacki, Pehkonen and Laine (2012: 118) write:

"The essential aim of learning mathematics is to acquire a thorough understanding of mathematical concepts and based on that, learn how to apply the acquired knowledge in different situations. To conclude, the current national curriculum still outlines only the main principles of teaching mathematics in Finnish schools without going into detail. The details are elaborated in the local level curricula."

Active learning and collaborative working are increasing trends in the Finnish schools and teacher education. We can see that in ten years there has been a big change in teacher education towards more active learning culture (NIEMI, 2002; NIEMI, 2011). National Board of Education has started a new curriculum reform of the basic education in the autumn 2012. The new curriculum should be ready in 2016 and years 2014-2016 are a participatory design process with NBE and teachers, researchers, teacher educators, municipalities, the teacher union, parents and other stakeholders. The aims of the new curriculum are to promote active learning culture in schools. Teacher education programs will be renewed in according the new curriculum.

4.3. More competences to collaboration in a school community and with partners outside the school

Results of the teacher education studies (e.g. NIEMI, 2011) show that student teachers would need more supervision and guidance on how to collaborate in a school community. They also need more competences with different parents and other stakeholders outside the schools such as representatives of working life as well as partners in business life and culture. Teachers' professional role has expanded and teachers need to be in cooperation with different partners. It has also raised a question how teachers' pre service teachers education can provide all these competences. There is a need to connect pre-service teacher education, induction of new teachers and in-service service training more effectively than it has been.

4.4. Different learners – equity for all

In the future, Finnish society will face several challenges related to ensuring current high quality learning opportunities for all learners as Finland becomes a multicultural society. It is important to ensure that everyone will have equal opportunities for education and learning. The concepts *equal* and *equity* are often used with the following meanings: Equal refers to an ideal and aim that people should have the same rights as each other without considerations of their sex, status or race. Equity is a policy-making concept that embodies the quality of being fair and reasonable in a way that gives equal treatment to everyone. The Finnish educational policy has aimed to operate under an umbrella that encompasses both meanings. The educational policy has systematically reinforced practices that provide equal opportunities for different learners.

We have signs on the last PISA results (OECD, 2010) that there slightly are increasing differences between schools. Aspects related to multicultural education, for example mother tongue teaching, religious education and location of multicultural pupils in all the schools in a city, are continuously considered in Finnish educational decision-making. In the next PISA measurements multicultural education and learning outcomes of ethnic groups will a national special focus area.

Diversity and different learners are taken into account by identifying and supporting them at the early stages of their difficulties, by organizing special needs education in local schools and classrooms, and by offering multi-professional support through pupil care groups. A purpose is that students could get support in time and progress in their development. However, this is a real challenge for pre- and in-service teacher education.

4.5. Pedagogical applications of information and communication technology

In the 1990s Finland was one of the leading information societies in the world (e.g. KOZMA, 2003 and 2008). Government supported the educational use of ICT (information and communication technology). In order to develop Finland as an information society national strategies and guidelines were created. People's attitudes towards new technology were mainly positive and Finland developed an international image as an innovative and technology-rich country. Nationally, heavy investments were made in the ICT infrastructure in schools and there was a strong drive to develop this further (KYNÄSLAHTI and SEPPÄLÄ, 2003; NIEMI, 2003).

Today students use ICTs and social media in their everyday lives, but not all Finnish schools provide network-based learning environments and ICT tools as effectively as they could. Recent results of the Finnish national research consortium OPTEK (KANKAANRANTA and VAHTIVUORI-HÄNNINEN, 2011) and a comparative study between 2006 and 2010 reveal that opportunities and access to ICTs have increased in Finnish schools. However, at the same time, inequality between schools and different regions has also increased. On one hand we have high-standard schools with excellent technological infrastructure, enthusiastic teachers and innovative pedagogical models and practices. On the other, there are schools which have been left far behind in the development of ICT use (NIEMI, KYNÄSLAHTI and VAHTIVUORI, 2012). It is also evident that teachers do not have the skills or media proficiency to apply technology effectively in new learning environments, especially ones with a strong social media component (NIEMI, 2011).

Finland is actively seeking new scenarios for a use of technology in teaching and learning. The recent research has revealed that the major question in schools is not technology as itself. The most important is how it is integrated with learning and teaching, and used pedagogically in a meaningful way. A recent Finnish research project (NIEMI, KYNÄSLAHTI and VAHTIVUORI, 2012) was seeking how information and communication technology can be applied in everyday life in Finnish schools. It revealed that many components of practices overlap and support each other. According to the results integration of ICT in everyday life requires both pedagogical and organizational qualities. This confirms very much what Kozma (2008) has presented earlier. Both elements have a strong value component: empowering student centred learning and teaching culture, supportive leadership, and open communication aiming at sharing and cooperation. Schools which effectively used ICT also had a strategy that was planned together by school principals, teachers and often stakeholders as well, such as parents. An important fact was that the strategy is not only a document, but more or less a joint expression of purpose and vision. This means meaning-making and acting in parallel directions in many areas and on many levels of the system. We can speak about ICT as being integrated into the culture of a school. This involves leadership that supports teachers' growth in their efforts to learn new competences for the educational use of ICTs even in uncertain circumstances and to develop curriculum which takes care of different learners (NIEMI, KYNÄSLAHTI and VAHTIVUORI, 2012). A new strategy was accepted by the Ubiquitous Information Society Advisory Board (Finnish National Plan for Educational Use of ICT, 2010) for promoting new technology in schools and teacher education. Tekes – the Finnish Funding Agency for Technology and Innovation has as launched a national program Learning Solutions 2011-2015 for developing pedagogical use of ICT in teaching, learning and teacher education.

Technology as a tool for learning is also one of the key areas in the core curriculum reform for 2016.

5. SUMMARY AND CONCLUSION

When thinking the Finnish educational system we may see a clear connectedness with values. Equity has been the main leading principle since thirty years. Proving good life-long learning skills to all learners throughout their life spans is linked with equity. This set special requirements to teachers' work and teacher education,

The Finnish system does not have national curricula. There are only national core curricula for different levels of the educational structure and they consist of value basis for teaching and learning and set as objectives much wider purposes than success in international tests, e.g. PISA measurements. Values are related to both social and individual growth processes and promote students to become active citizens, responsible and cooperative contributors in society and how self-regulate own learning and have agency in their lives. Teacher education is also connected with major educational values and the educational system even though teacher education is provided in universities. Teachers are expected to work as high quality professionals and their ability to reflect on their profession is one of the most important aims in the Finnish teacher education.

Teachers in Finland are representatives of a high-quality academic and ethical profession. Teachers have to take an active role in raising serious questions about what they teach, how they teach, and the larger goals for which they are striving. Teachers need to view themselves as public intellectuals who combine conception and implementation, thinking and practice in the struggle for a culture of democratic values and justice. Teachers have a right and an obligation to articulate educational needs and challenges in the society they serve. They also have to be active in public debates and decisions affecting the development of schools and education. As professionals, teachers cannot only be implementers of decisions, but must also be partners in their development. Teachers are expected to be able to take an active role in evaluating and improving schools and their learning environments. They are also expected to refresh their professional skills, to cooperate with parents and other stakeholders, and to be active citizens.

Finnish teachers are recognized as professionals, and the teachers' trade union considers this status to be very important. Almost all teachers belong to the same teachers' trade union (OAJ), which is a very powerful agency. It has been invited to play an active role as a partner in all major reforms of teacher education and school curriculum in the last decades. It has also promoted the policy of the master's degree as teachers' basic qualification. Finland has no inspectorate, no probation time for newly graduated teachers' or national school achievement testing. Finnish society considers teachers to be professionals who are morally responsible for their work.

The society's trust in universities' degrees as well as teachers' competences is mediated via trust in the universities and makes them very accountable. Trust is not a stable and permanent status. Results and quality must be assessed and evaluated systematically. Therefore universities' own quality assurance methods are important. Teacher education has also been evaluated several

times nationally and internationally in the last two decades. Evaluations have been enhancement led and their purpose has been to produce improvements in teacher education. There is a close cooperative relationship between universities and the Ministry of Education and Culture in teacher education issues. The recent recommendations from the Ministry of Education and Culture stress the importance of strengthening research in and on teacher education. The Ministry of Education and Culture (2007) also requires universities to reorganize conditions for teacher education research.

The OECD review team looking at equity in the Finnish education system (OECD, 2006: 48) expressed the view that the Finnish strategy has taken a long time to mature and is composed of several interrelated issues. The team writes: “This is a complex of practices that has emerged over time, but it must be maintained since any weakness in one component will undermine other practices.” The miracle of the Finnish education is an outcome of a purposeful policy and practice. The educational system and teacher education have together supported the aims of equity and teachers’ professional autonomy. There are a number of reasons that all together have resulted in high learning outcomes. Many of those factors are mutually dependent and interconnected. If any one of the factors is dramatically changed, it may affect the whole. The success is based on the combination of political will, purposeful efforts to promote equity by the educational system, high quality teacher education, teachers’ professional and moral responsibility, and society’s trust in the educational actors.

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