Pedagogical environments – Case Finland
Ambienti pedagogici: Il caso della Finlandia

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ABSTRACT

Teacher education plays a key role in educating teachers who are engaged in change-making both in school communities and in broader society. Finnish education has received a lot of international attention, as Finnish 15-year-olds typically perform very well in the OECD's PISA surveys. The major reasons for this success are a purposeful educational policy and educational system and the high quality of teacher education. This article introduces the basic principles of Finnish educational policy, namely the Finnish educational system. This article also provides a description of Finnish teacher education, which is considered a cornerstone of Finnish success and part of the developmental process used in the teacher education department to meet future challenges.

La formazione dei formatori gioca un ruolo chiave nel formare insegnanti che siano coinvolti nella riforma sia delle comunità scolastiche che della società in generale. Il sistema educativo finlandese ha ricevuto molta attenzione a livello internazionale, poiché i quindicenni finlandesi solitamente ottengono migliori risultati nei test PISA dell'OECD. La ragione principale di tale successo sono: significatività delle politiche educative e del sistema scolastico e l'elevata qualità della formazione decente. Il presente articolo introduce i principi fondanti delle politiche educative finlandesi e del sistema scolastico cui si riferiscono. Si fornisce inoltre una descrizione della formazione docente in Finlandia – considerata la pietra d'angolo del successo finlandese – e dei processi di sviluppo adottati dal Ministero dell'Educazione per affrontare future sfide.

KEYWORDS

Teacher education, Change-making, Finnish education, Finnish educational policy, Future challenges.
Formazione degli insegnanti, Riforma, Sistema educativo finlandese, Politiche educative finlandesi, Future sfide.

Introduction

The welfare of Finnish society is largely based on knowledge and competence. Free education, as a basic right for all citizens, was an important part of the welfare society that emerged after the Second World War. At that time, there was wide consensus among politicians that equality should be promoted by implementing a system that provides educational opportunities for as long as possible to all those who are motivated to learn, regardless of their socioeconomic status, gender or residence (Niemi, 2012, pp. 21-22).

Today, Finland has a nine-year comprehensive school system that takes place in a unique learning environment, as an entire age group learns together. All pupils take the same curriculum until the end of 9th grade. According to Finnish educational policy, the potential of each student should be maximized and everybody must have equal access to high-quality education and training. In this system, 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. This means that education is tailored to a student's specific needs, and each child has equal opportunities to develop one s own capabilities and personality (Finnish National Board of Education, 2011). Thus, with extra support for the weakest pupils, the performance of the whole group can be lifted (Niemi, 2012). Education, support and guidance are provided free of charge. Also, school meals, health care, school transport and learning materials are provided for all pupils.

Decentralised decision making and local responsibility have been characteristics of Finnish educational policy since the 1980s, and this decentralisation can be seen as one of the important decisions in Finnish educational policy. Comprehensive schooling was a centralised system in its early stages, but in 1985 more freedom and responsibility were given to municipalities in terms of organising education, as the national curricular guidelines created a framework for curriculum design in municipalities. Further, in 1994 only very broad aims and content guidelines for teaching different subjects were given, and thus municipalities and schools set up their own curricula on the basis of the national core curriculum (Niemi, 2012). Nowadays, a lot of decision making power is allocated to the local level.

The Ministry of Education and the National Board of Education develop national objectives, content and methods, or guidelines; then, in the development process of a national core curriculum at the local level, municipalities, universities, schools and teachers are involved in the process. Thus, national core curriculum is not a document given to teachers in a top-down process so that teachers simply implement it, but rather they help to shape it from the ground up.

National core curriculum for basic education specifies the objectives and core content of cross-curricular themes, subjects and subject groups. It constitutes regulations, on the basis of which the provider of education will take decisions for respecting curriculum. For example, the national core curriculum reviews elements of a good learning environment in following way: The learning environment supports a student's motivation, curiosity, self-directed learning and creativity by providing him/her with interesting challenges and problems. The learning environment must also challenge the student to set his/her own goals and to evaluate his/her own learning. The guidelines also raise the importance of inspiring and active learning processes that take into account the inten-

tional and processual nature of learning. Methods should also support organised knowledge structures and skills of knowledge construction, as well as support taking responsibility for one s own learning and support self-evaluation of learning outcomes and support collaborative learning (National Board of Education, 2001). Education providers have a wide range of freedom in determining the local curricula based on the above mentioned guidelines. Indeed, local curricula deals with teaching and educational practices of schools, maintains schools' operating environments and oversees local value choices and special resources.

Besides determining the local curricula, the decisions concerning allocating funding, local curricula and recruiting personnel are also made on a local level. Educational providers are responsible for practical teaching arrangements as well as for maintaining the effectiveness and quality of education. Municipalities also have the autonomy to delegate decision-making powers to schools. For example, typically the principals recruit the staff for their schools. The schools have the right to provide educational services according to their own administrative arrangements and visions, as educational quality assurance is not based on controlling but on steering. Ideology is intended to steer through information, support and funding. Finland does not have school inspections or heavy national testing of learning outcomes. Instead of test-based accountability, the Finnish system relies on the expertise and accountability of teachers who are knowledgeable and committed to their students and to their work (Sahlberg, 2010). There is a strong focus on both self-evaluation of schools and education providers. Also, national evaluations of learning outcomes are conducted regularly. Evaluations are sample-based, so not every school or every child is tested. The main aim of national evaluations of learning outcomes is to follow, at the national level, how well the objectives have been reached, as set in core curricula. The basic function is to use the evaluation results of learning outcomes as a basis for development, not to rank different schools or teachers (Education in Finland, 2013). Similarly, the role of student assessment is to guide teaching and learning processes and to support motivation for learning, not just examine the outputs of learning or to awarding grades. In this approach, there is more interest on process rather than product of learning and thus assessment has to be continuous and authentic.

The distinctive features of Finnish educational policy are trust and autonomy, which suffuses many levels of the education system. Finnish teachers are trusted to be academic professionals who have good theoretical and practical education, high morals and a strong ethical commitment to their work (Niemi, 2012). Teachers are allowed to organise their teaching in terms of working methods and selection of educational materials. Teachers also have an active role in curriculum development and in processes aiming to evaluate and improve school communities and learning environments. Teachers are expected to continuously and systemically develop their own teaching methods and to refresh their professional skills.

Finnish teachers' pedagogical autonomy and freedom are based on high-quality education producing pedagogical experts who have the necessary competence to meet the demands of school work. The high quality of teachers and teacher education is often considered to be the main reason for the success of Finnish students in the Programme for International Student Assessment (PISA) (Silander & Välijärvi, 2013).

1. Teacher Education in Finland

In Finland, universities are responsible for providing education for prospective primary- and secondary-education teachers. All primary and secondary school teachers are required to have a master's degree for teacher qualification. Finnish universities have autonomy in designing their own teacher education curricula. However, all teacher education programmes include studies in education, pedagogical studies (including teaching practice), research studies, communication, language and ITC studies, minor studies and optional studies (Niemi, 2012).

The primary school teacher programmes are organised by the faculties of education. The main subject for prospective primary school teachers is education. Table 1 shows the structure of primary teacher education studies. The scope of the master's degree in education includes a total of 300 credits and students with the degree are eligible for postgraduate studies in education (Linnakylä, 2004).

Primary school teacher education program	Bachelor's degree 180 ECT	Master's degree 120 ECT	Total
Class teacher's pedagogical studies (as part of major in education)	25 (including supervised teaching practice)	35 (including 15 ETCS in supervised teaching practice)	60
Other studies in major in education	35 (including a BA Thesis, 6-10)	45 (including an MA Thesis, 20-40=)	80
Subject matter studies for comprehensive school	60		
Academic studies in a different discipline, minor	25	0-35	25-60
Language and communication studies, including ICT and optional studies	35	5-40	40-75

Table 1. Main Components of Teacher Education Programmes for Elementary School Teachers
(Niemi & Jakku-Sihvonen, 2006)

Subject-teacher programmes are organised co-operatively between the department of the teaching subject and the faculty of education. Prospective teachers' studies consist of advanced studies in one subject, with a minimum scope of 80-90 credits and intermediate studies in a second and possibly third subject, with a minimum scope of 50-60 credits in each subject (Table 2). Subject-teacher qualifications call for 60 credits of pedagogical studies organised by the faculty of education (Silander & Välijärvi 2013). Pedagogical studies are obligatory for teacher qualification and are approximately the same for both primary and secondary teachers. Pedagogical studies must be studies in the science of education with an emphasis on didactics.

Secondary school teacher education program	Bachelor's degree 180 ECT	Master's degree 120 ECT	Total
Subject teacher's pedagogical studies (minor)	25-30 (including supervised teaching practice)	30-35 (including 15 ETCS in supervised teaching practice)	60
Academic studies in different disciplines (major)	60 (including a BA Thesis, 6-10)	60-90 (including an MA Thesis 20-40)	120-150
Academic studies in different disciplines (1-2 minors)	25-60	0-30	25-90
Language and communication studies including ICT, optional studies	35-40	0-30	35-70

Table 2 – Main Components of Teacher Education Programmes for Secondary School Teachers
(Niemi & Jakku-Sihvonen, 2006)

The teacher education programme of each faculty of education has its own emphasis within the common frames, which determine the general scope of the programme, as well as the content that is necessary to fulfill the requirements defined by the national educational system. Universities have committed themselves to following principles in teacher education; teacher education is research-based and reflective, teacher education integrates theory and practice and it produces reflective teachers who are life-long learners with a readiness for professional development through their career (Silander & Välijärvi, 2013).

A central theoretical and organisational theme of teacher education is research-based learning. Research-based teacher education means that teachers' professionalism is founded on sound scientific knowledge and that teachers have the capacity to broaden and deepen their competence through their own exploration and critical reflection on their professional practices (Niemi 2009). In order achieve this goal, teachers need to be familiar with recent research in their subject matter and in pedagogy and capable of integrating research-based knowledge into their professional behaviour in a reflective way (Silander & Välijärvi, 2013).

Making use of research knowledge and familiarisation with research methods are included in most study requirements. In the beginning of their studies, prospective teachers conduct small- scale research projects on various educational and pedagogical themes. The research-based approach culminates in a master's thesis, which is obligatory for every student. This process provides students with the opportunity to complete an authentic project, in which they have to formulate a problem of a particular educational field, independently collect information and data relative to the problem, elaborate on the problem in the context of recent research in the area and synthesise their results in of the form of a written thesis (Silander & Välijärvi, 2013).

Teacher education integrates the practical aspects and theoretical basis of teachers' work; this is especially true in pedagogical studies that combine theory and practice. In these studies, students develop their own teaching philosophy through reflective, dialogic and practical activities. Students orient themselves to the work and functional environments in the field of education and examine different educational perspectives. The focus of their studies is the rela-

tionship between learning and guidance, which is approached from various perspectives.

Teaching practice is an integral part of pedagogical studies. Every practice teaching period is combined with detailed theoretical studies that relate to the topic in question, and thus teaching practice periods are closely interlinked with other studies. The idea is that theoretical studies will provide a basis for each practical period. In order to obtain more knowledge to facilitate their teaching practice, students may read relevant research literature and discuss topics with each other and with teacher educators (Silander & Välijärvi, 2013).

Reflective thinking and dialogue are emphasised at the present curriculum for teacher education. A prospective teacher should be able to critically evaluate different ways of working with children as well as continuously questioning his or her own thinking patterns. Students learn to reflect on scientific knowledge, combining it with their own conclusions based on their observations and experiences.

2. Need for Future Development of Teacher Education

Teacher education needs to be continuously improved and developed if it is to meet future challenges (eg. Cochran-Smith et al., 2009). New forms of teacher professionalism are needed as society and the workplace have changed in recent decades. Also, our perception of knowledge and ways of learning are modified and changing. At the moment, however, it seems that teachers are not educated for a knowledge-based global society, but rather teacher education has remained largely in the industrial era (see Hökkä & Eteläpelto, 2013 for research). This is very contradictory, as teacher education should be future-oriented in all of its processes and should be a pioneer in educational and pedagogical practices.

During the industrial era, the purpose of education was more or less to equip pupils with sufficient skills and to educate conscientious and effective workers. Thus, the profession of a teacher was defined as a provider of facts and skills, and the aim of teacher training was to ensure that teachers had the necessary knowledge base and skills to fulfill this goal. Moreover, the product of a student's education was the focus of all activities. However, in a knowledge-based society, we need different kinds of skills and know-how from teachers. For example, according to Darling-Hammond (2010), the learning expectations in a changing environment are more processual than focused on the end-products of learning (see Picture 1).

Ability to communicate
Adaptability to change
Ability to work in teams
Preparedness to solve problems
Ability to analyse and conceptualise
Ability to reflect on and improve performance
Ability to manage oneself
Ability to create, innovate and criticise
Ability to engage in learning new things at all times
Ability to cross specialist borders

Picture 1 – Learning Expectations in a Changing Environment (Darling-Hammond, 2010)

The Finnish National Board of Education has defined the objectives of basic education as citizen skills that cover all subjects and are required in society (see Picture 2). Citizen skills refer to extensive functional capabilities, which combine knowledge, skills, attitudes and values with the ability to apply what has been learned (Finnish National Board of Education, 2011).

Picture 2 – Citizen Skills that Cover all Subjects (National Board of Education, 2011)

At the present time, it seems that schools are not meeting the challenges of a knowledge-based society in the best possible ways. Developing well-established institutions and cultures, however, is challenging because of the long traditions and deeply-rooted ways of thinking and doing things. One possible way to change school cultures is to alter the way new teachers are educated so they can act as agents for change in their future working environments. Also, teacher education programmes appear to be more static than dynamic and processes for improving them are time-consuming and demanding (see Hökkä & Eteläpelto, 2013) Based on a recent meta-analytical study, Hökkä & Eteläpelto (2013) suggest that for successful and sustainable changes in teacher education, practical interventions at the individual, work community and organisational levels are needed.

The remaining part of the paper describes the developmental work conducted in one teacher education department that was aiming to change the culture of teacher education, and in turn improve the culture of the school. The aim of the developmental actions is, among other things, to strengthen communal processes and collaboration between different subject groups, to create new and alternative ways for teaching and learning and to widen the professional identity of teacher educators. All three levels suggested by Hökkä and Eteläpelto (2013) are being covered in the process of development.

At the organisational level, the key question is how to support collaborative processes in a climate with a long history of working alone or in tightly-defined subject groups that typically focus on certain subject pedagogy (i.e. science, art, music, etc.). The collaboration between these groups has been uncommon and was characterised by competition (Hökkä, 2012). Lack of common time for discussing, sharing ideas and for engaging in innovative work has been one explanation for lack of collaboration. Thus, it was decided that all Tuesdays from 8 am

to 2 pm would be dedicated to shared processes and it was forbidden to teach during this time period. This opened up the possibility of finding a shared time and space for teachers to meet each other, work together, conduct research and write together and most of all, to think together. This organisational change also enabled the participation of the whole staff.
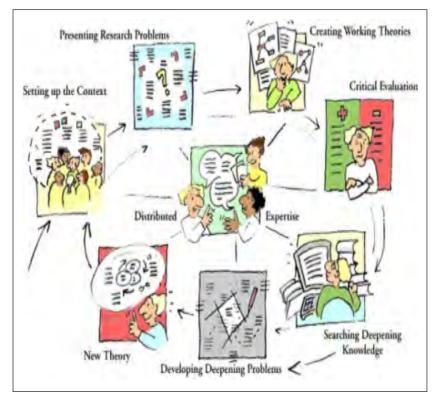
According to Hökkä and Eteläpelto (2013), the role of management and educational leaders is very important in developing teachers. Thus, the old-fashioned model of a hierarchical system was rejected and a tradition of shared leadership was embraced. Currently, the department has a team of four leaders structured as followed: head of department, vice head of department, pedagogical leader and a research director. The team of leaders meets regularly to discuss and share ideas and to work together in joint processes. As the team of leaders need time and spaces to form a common vision and shared understanding, 1- 2 day long working seminars are organised once or twice a year.

Another change in organisation and way of working is a change from teacher educators working alone or in tight subject groups into teams of teacher educators working together; each team is responsible for developing, organising and evaluating certain studies and courses together. Different expertise is being used in these teams in order to view education from a broader perspective and to support boundary crossing between subjects.

Organisational-level and work-community intervention are also organised. The aim is to bring different viewpoints into view and to try to understand official and unofficial power relations and to engage in discourse and practices within an organisation (Kalliola & Nakari, 2007, see Hökkä & Eteläpelto, 2013). According to Hökkä and Eteläpelto (2013), it is possible to build new shared understandings, work practices and strategies through revealing often- hidden organisational discourse and practices. In this case, joint work within the community yielded concrete plans concerning how to develop the work community.

The aim of developmental work at the collective level is to achieve a shared understanding of new ways of working and teaching through discussion and development. One example of renewed processes is the curriculum developing process. The aim of the new curriculum is to respond to future challenges of working life and to develop teacher education at the organisational level. One obstacle for collaboration in teacher education is the competition of resources between different subject groups (Hökkä, 2012). So, in order to support boundary crossing and collaboration, a subject-based teacher education curriculum was replaced with phenomenon-based curriculum. The developmental process involves heavy negotiations and meaning-making processes. The process involves all members of a work community and other stakeholders in a participatory process in which everybody has a say. It is important to notice that students are also considered full members in this process.

In the new curriculum, the ways of teaching and learning are also changed and renegotiated. The phenomena-based curriculum can be approached, for example, by using inquiry-based learning (see Picture 3). This approach is communal and can change the roles of both the teachers and students. The teacher's role is more to guide the process than to be the source of knowledge. Furthermore, students are more active and involved in their own learning processes, from defining proper and meaningful questions to evaluation of the process. Thus, students have a lot more responsibility in their own learning. Society, school life with authentic situations and problems are present in the learning process and the interaction between teacher education and the surrounding community is constant and vivid. This kind of authentic learning always involves insecurity

and conflicts; learning to cope with them is part of the education process. Learning is holistic and integrates themes, subjects and processes.

Picture 3. Elements of Progressive Inquiry (Hakkarainen, Lonka & Lipponen, 1999; 2004)

At the communal level, new ways of educating teachers are supported. One example of a pilot project is briefly described in the following example, which highlights a new perspective in modern teacher education. "Teachers in Clouds" is a pilot group in which communal teachership and new learning environments are developed for the needs of future schools. Different courses are being integrated holistically and an investigative approach is utilised as students focus on different phenomena to be studied. Education has a direct link to the realm of schools. This group utilises new technology in diverse ways and creates new technology-based learning environments. In this process, teacher educators are also taking the role of learners as new ways of using technology in learning are created collaboratively with students who are digital natives and thus, sometimes more knowledgeable about technology. As students are in close connection to schools where they learn from teacher-mentors, they can also convey information about technology-enhanced learning environments to teachers. So, in a way this can be seen as a creative way of in-service training with mutual benefits for all participants.

At the individual level, there is a need for a change in teacher educators' professional identities. The work of teacher educators is changing from working alone to teamwork, where multiple experts are utilised and teachers' roles are to support learning processes. Moreover, there is a clear need for teacher educators to combine the roles of educator and researcher.

Time and space for a work-identity process was created, and work-identity coaching intervention took place as a pilot (Hänninen & Eteläpelto 2008; Mahlakaarto 2010). According to Mahlakaarto (2010), the work done in work-identity workshops can help to reshape professional identity, adopt new work roles and identity positions.

In this developmental process, all three levels — organisational, work community and individual, are taken into consideration. The work is still in its early stages and is an ongoing process aiming to make changes in educational settings.

According to Niemi (2012), the major reasons for the success of Finnish education are 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. However, if the old concepts and old definitions of teaching and learning and teachers' professionalism are being used, schools will not be able to meet future challenges in proactive and innovative ways.

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