

# Teachers' competences in the light of new demands and opportunities in Finland<sup>1</sup>

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## **Abstract**

In this paper we want to describe and discuss the main changes and emphasis areas in education in Finland. We connect the changes and challenges with teachers' competencies that are promoted and supported in teacher education at Teacher Education College of Jyväskylä. In this paper the matters are discussed from professional further and higher education point of view and from the viewpoint of teacher education for this particular area. We mean by the concept of professional further and higher education the education that takes place after basic education and is vocation and profession oriented on secondary as well as higher education level.

## **Introduction**

Finland is world-wide known of good educational results in international evaluations (Linnankylä & Välijärvi 2005). The welfare of Finnish society is built on education, culture and knowledge. All children are guaranteed opportunities for study and self-development according to their abilities, irrespective of their place of residence, language or financial status. All pupils are entitled to competent and high-quality education and guidance and to a safe learning environment and well-being. The flexible education system and basic educational security make for equity and consistency in results. (Ministry of Education 2004).

The value and principle of equity has a long tradition in Scandinavian Countries: in Finland, Sweden, Norway, Denmark and Island (Linnankylä & Välijärvi 2005). The key words of Finnish education policy are equity, quality, efficiency and internationalization. Education is a factor for competitiveness. The current priorities in educational development are to raise the level of education and upgrade competencies among the population and the work force, to improve the efficiency of education system, to prevent exclusion among children and young people and to enlarge adult education opportunities. Special attention is also paid to quality enhancement and impact in education, training and research and to internationalization. (Ministry of Education 2004).

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<sup>1</sup> The article is published in: Challenges and Moves in Education. Shaoxing University publications, China, pp. 1-20. and is based on the paper presented in the international conference at Shaoxing University, Shaoxing, China, May 8-10, 2007

## **1. The Great Reforms in Vocational and Higher Education**

The 1990's was a period of transition for Finnish society, during which working life and production structures were significantly reformed. The driving force for the reforms were the rapidly changing international structures, the globalisation of economy, the great innovations of communication technology, and the remarkable growth in industrial productivity during the latter half of the decade. One can say that along with the transition the traditional Finnish industrial society was transformed into an information society, characterized by continuous change, an accelerating flow of information, automated processes and networked practices. These development paths have presented numerous challenges for learning and strongly influenced the renewal and development of vocational education and training.

Large-scale social reforms can seldom be implemented in a short period of time. Osmo Lampinen (2002), who has studied the changes of the Finnish educational system shows that reforms have been preceded by a long preparatory period of several decades even. The basic ideas of reform take shape as the result of a long maturing and discussion process, and the implementation of an agreed reform also takes plenty of time in a sparsely populated country.

## **2. From School-Centeredness to Open Educational Structures**

Throughout its history, Finnish vocational education and training has been school-like, state-directed and teacher-centred. For decades school was regarded as an apparently impartial arena of social mobility, which could not be suspected of commitment to the interests of employers. Liisa Tiilikkala (2004, 19) describes Finnish vocational education institutions, in spite of their state control, as relatively autonomous places providing vocational education and training - places where working life or students' parents had very little say.

The deep economic depression at the beginning of the 1990's effectively accelerated the already initiated transition of educational policy. The independent role and function of educational policy in society had been emphasised in earlier decades, whereas during the years of depression development focused more clearly on merging educational and other social policy. The nature of

the transition is analysed by Osmo Lampinen (1998, 16 – 18) by referring to the three important turning points of the 1990's: the entanglement of education and economy, the increasingly important role of labour market goals and industrial policy in the implementation of education, and the financing practices of educational and development programmes applied within the EU.

In the 1990's decisions regarding educational policy started to be considered more and more from the perspective of state economy. A regionally decentralised and disconnected school network proved to have become too heavy. Consequently, towards the end of the 1990's, the focus was on the reorganisation of the field of educational institutions, the large-scale merging of vocational education institutions, and the trimming of operations. Not only structures were evaluated from the viewpoint of profitability, but the new demands for efficiency and economy had an impact on management, pedagogic decisions and educational content as well.

At the same time, the idea of the significance of educational policy for the anticipation of international development and social change, as well as meeting the challenges brought up by them, became stronger in Finland. Along with this, the key objectives for the development of education were defined on a permanent basis: raising the level of education, improving educational quality and increasing the effectiveness of the educational system. Moreover, the improvement of educational opportunities, the individualisation of educational content and the demolition of the structures preventing this development were emphasised. The provision of opportunities for life-long learning was also included among the most important goals.

Most Finnish regions are relatively small. This means that they are not in a position to develop into major networking centres in an expert economy merely by relying on their own know-how and resources. Their success requires the adoption of new methods of action: regional responsibility, networking, and participation in various innovation systems (Ståhle, P. & Sotarauta, M. 2003, 3). For this reason the mutual co-operation, networking, regenerative capacity and innovation of local operators are seen as a major challenge for the development of vocational and professional education, too.

These were the general outlines for the recent development of vocational upper secondary and tertiary level education in Finland. In the figure 1 the changes in the development of vocational education during the last decades have been gathered considering the openness of educational structures and the sources of knowledge and learning.

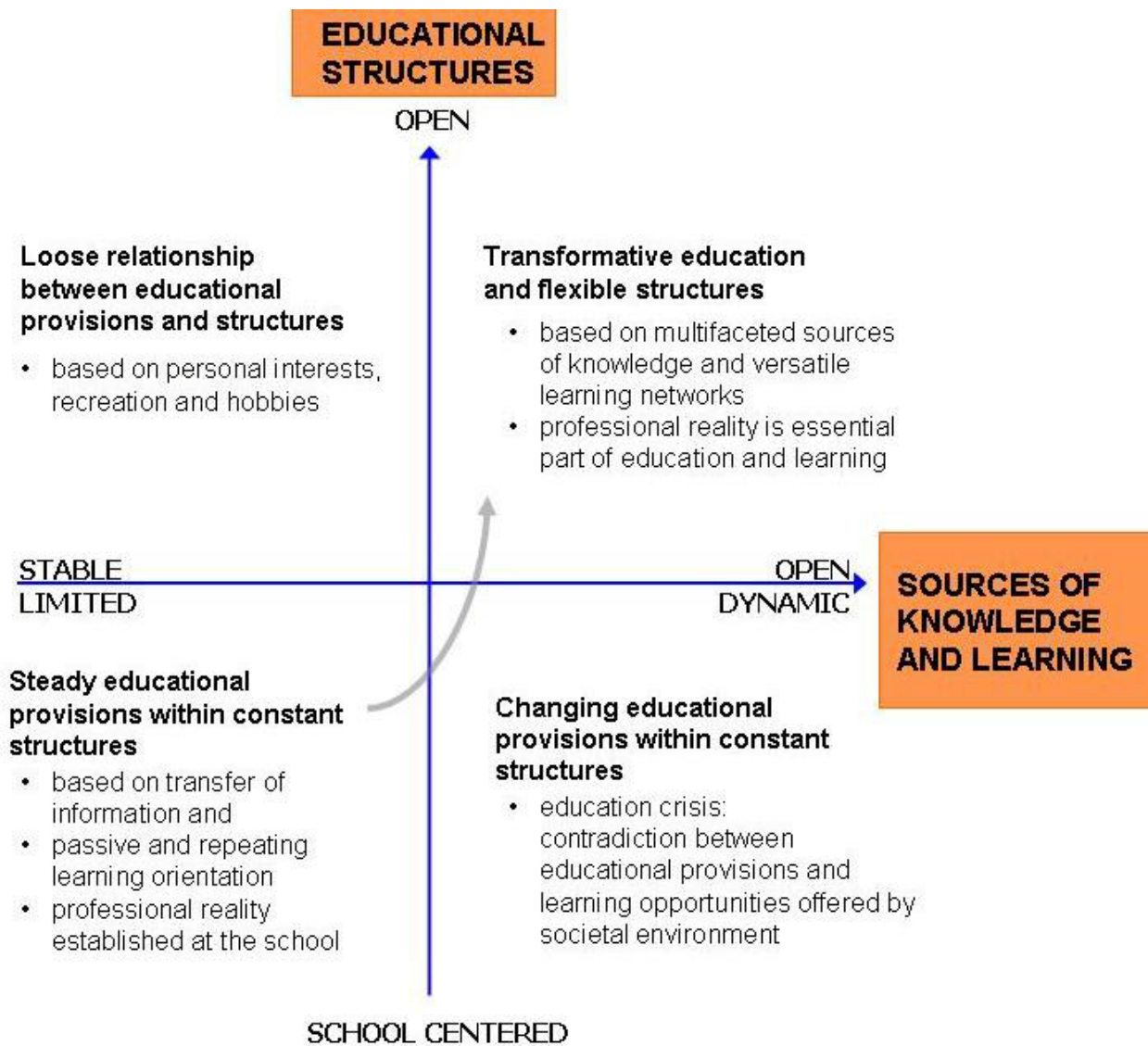


Figure 1: Changing educational structures in Finland since 1950

At present increasing co-operation between working life and education has become a central development target. The relationships between education and training and working life are reorganised in many ways as well as the use of multifaceted sources of knowledge and versatile learning networks and opportunities. It is clear that these changes are still in their infancy and they will also play an increasingly important role in the future in terms of determining the competence and vocational skills required of teachers.

### **3. Vocational teacher education in Finland**

Education for vocational teachers has been provided since 1951 through a number of temporary vocational schools. As the structure of vocational education developed, demands for vocational teacher education increased. For that reason the first two vocational teacher education institutes were founded in the turn of 60's. This marked the beginning of the permanent vocational teacher education.

Vocational teacher education is offered at five teacher education colleges in the different parts of Finland. The annual student intake countrywide is 1 400. At present, vocational teacher education consists of 60 study points (former 35 credit units) and offers a general pedagogical qualification for teaching. Teacher education, in accordance with act 968/98 governing qualification of educational personnel, requires a Master's degree or the highest level of education offered in the vocational field and at least 3 years working experience in the same vocational field. Teacher trainees from all vocational branches are educated in these colleges. After few years of work experience teachers can specialise either to special needs education teacher or study counsellors.

Currently the majority of the students are studying while they are working in educational institutes or other professional fields. For that reason different kind of study opportunities are provided. It is possible to take the studies in one year in so called full time study model or study more flexible way in two years. For student teachers who already possessed a great deal of teaching experience, an opportunity to demonstrate ability through a competence-based degree has been developed. Internationally oriented teacher education in English is also offered.

After qualification the teachers position to vocational institutes, adult education centres and universities of applied sciences. In the appendix 1 the Finnish education system and its relation to vocational teacher education are illustrated.

#### 4. Vocational teachers' competences

Teachers are the most significant factor underpinning educational results. The essential factors behind Finland's success in the international evaluations in educational outcomes are high-level teacher education and valuation of teacher profession as well as the idea of equity (Linnankylä & Välijärvi, 2005). In recent years, teachers' competence has been given a great deal of attention (Finnish National Board of Education 2007). In compliance with the statute (357/2003) governing vocational teacher education, the aim of vocational teacher education is to provide its students 1) the knowledge and skills to guide the learning of different students; 2) a willingness to develop teaching taking into consideration the development aspects of different professions and working life in general.

Researchers, like Luukkainen (2000), Fullan (1994, 1999), Kohonen (1997), Niemi (1997, 1998) and Niemi & Tirri (1997), have highlighted that learning need to be seen from much broader perspective than only as a result of teachers' and school environment's action. New learning environments and partnerships, facing and involving in change processes and work communities are important parts of teaching and learning processes in order to meet the requirements and needs of working life.

Accordingly, these aims are realised in a curriculum of the Jyväskylä Teacher Education College by defining four competence areas that represent the core competences of a teacher's work:

- Facilitating learning
- Development of the educational environment
- Cooperation and interaction
- Continuous learning

The following figure illustrates the four interconnected competence areas mentioned above.

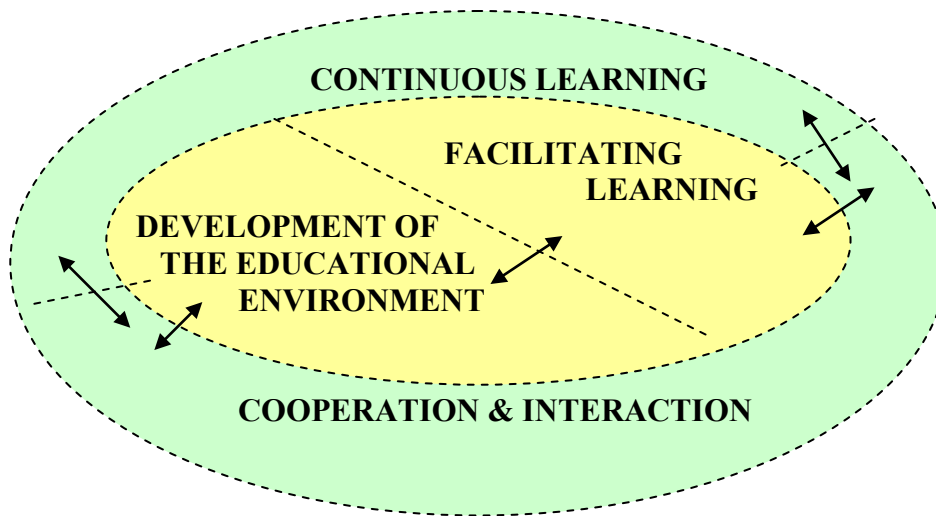


Figure 2. A teacher's competence areas

Every competence area includes a variety of skills, knowledge and attitudes which teachers should possess. The competence areas are interconnected which means that each area is “food” for other areas.

#### 4.1 Facilitating learning as a heart of teachers' work

Facilitating of learning has traditionally always been, and still is, one of the main competences in a teacher's work (Aarnio, Enqvist & Koli, 2007). Over time, though, ever-increasing academic research on learning, as well as new learning environments, have changed and expanded the traditional understanding of a teacher's work and role. A teacher is expected to have competence in finding new ways in which learning can be facilitated.

Learning is the central phenomenon in any kind of teaching and tutoring. A teacher always has own understanding of human nature and the concept of knowledge which affects a teacher's understanding of learning. This understanding can be a conscious, partially conscious or even completely unconscious process that concretises in facilitating learning process. Good quality teaching and facilitation of learning and their development are based on sufficient theoretical knowledge about learning, how the knowledge is constructed, how humans learn and develop their

own competences. By its very nature, facilitating learning is a practical activity, taking place either at educational institutes, workplaces or virtually. The practical decisions that teachers make when facilitating learning should, therefore, be based on theoretical knowledge of learning and teaching.

As well as possessing a wide knowledge about the learning processes, teachers are also expected to understand the diversity of learners. Students' culturally diverse backgrounds require teachers to modify learning activities accordingly to meet the individual learning needs of different learners (Maunonen-Eskelinen, Kaikkonen & Clayton 2005). Hirvonen & Raudasoja (2007) state that the number of students with special needs has increased and accordingly the needs of special support and individual tutoring have grown. This requires a continuous analysis of learners' needs and flexibility from the curriculum.

Previously teachers' main task was to impeccably implement 'the ready made' curriculum, nowadays though, teachers are expected to have both the ability and desire to continuously develop and adapt the curriculum according to the needs of different learners. An interpretive approach to curriculum planning is therefore a part of a teacher's competences. When planning different teaching situations and learning environments, concepts such as; situational sensitivity, creativity and flexibility are needed to be able to formulate learning goals and make decisions on the content and methods to be used.

#### **4.2 The challenge of new learning environments**

In addition to facilitating learning, a teacher should endeavor to develop the educational environment s/he works in. A teacher should therefore possess the appropriate skills in order to develop his/her educational institution accordingly. For instance, a teacher must have skills to develop curricula, to take part in the institution's quality assurance work and to plan and implement various project works, all requiring skills for development and collaboration. Therefore, entrepreneurial skills are required with a firm understanding of institutional quality and economic realities.

Both educational establishments' and individual teachers' work environment consists of various cooperative relationships with local and regional professional fields. Research and development work together with these various professions is an essential part of the vocational education

requiring extensive networking and co operational skills. In the broadest sense, a teacher's work environment is composed of various national and international networks (Helakorpi 2007) and therefore, understanding the developments in global trends as well as changes in society and the professional field are important parts of a teacher's competences.

Teachers need to obtain a theoretical and practical command of the content to be taught. The required level of the subject knowledge differs depending on where learning activities take place and what the required learning goals are. While the involvement of different professional fields becomes an increasingly important part of the vocational education, new methodological solutions need to be continuously developed. One such method is project work where teaching and research and development can be combined.

By its very nature a teacher's work is ethical, consisting of various value choices that a teacher has to make when facilitating learning. Those choices are influenced by the socio-historic environment where teaching takes place and they are reflected by the future expectations and aims of a teacher. By participating in societal discussion a teacher can affect the future development of both the professional and societal life.

### **4.3 Cooperation and interaction – together, not alone**

The Cooperation and Interaction competence area is closely related to both the Facilitating Learning and Development of the Educational Environment competence areas. Cooperation and interaction is often connected, for instance, to the national or regional educational planning and realisation work or to different development project work.

Cooperation at the institutional level requires the ability to network and form different relationships at various levels. It also involves the ability to work within organisations that have cross-institutional cooperative relationships with other institutes and working life. Teachers in vocational education institutes encounter this daily through learning at work practices and various project works. In its broadest sense cooperation reaches into international and global arenas, which for many teachers and institutes has become an everyday reality through international projects (Kaikkonen, Maunonen-Eskelinen & Mutka, 2007).

Teaching has always been sociable work and it has been based on the interaction between people, i.e. teachers and learners. Even though, the nature of sociability has been defined in different ways at different times, the ability to interact positively with learners is still the cornerstone of facilitating learning.

Alongside traditional interactive models, teachers are nowadays expected to display a willingness to develop new interactive solutions to facilitate learning. Developments in Information Technology infrastructure enable the development and exploitation of different online pedagogical solutions to support learning processes. The development of these new working models requires not only Information Communication Technology (ICT) skills, but also a conscious view of the change in society and the nature of human learning processes. Nurmi (2006) highlights that web- interaction skills make possible to develop learning communities in a new manner which Finland has got good examples and models about. The Finnish information strategy requires a teacher to have basic skills in ICT and the skills to implement them in learning situations.

#### **4.4 Life-long learning as a competence**

Lifelong learning became a key issue in debates pertaining to educational policy in the 1990s. Such changes in the Finnish society like the ageing of the labour force, the growing number of people reaching retirement age, the growing differences in education between generations, and the increasing demand for higher occupational skills and competence have all posed new challenges for education. As a result, Finland is highly committed to making lifelong learning a reality and that has taken into account on all levels of education. (Finnish National Board of Education. 2007).

Since the ability for continuous learning is an essential part of the core competence of a teacher it can be seen as a metaqualification, metacognitive skills (Penttilä, Lahtikari & Vanhanen-Nuutinen 2007). The concept of reflection is what joins various areas of competences together and in this way a teacher continuously develops his/her own work, as well as, his/her own theory of practice. The ability for critical self-assessment and reflection represents a central part of a teacher's professional skills.

The ability to think and work independently and collaborate with others is essential qualities for a teacher to produce fresh ideas and to further develop the working environment/educational institute.

Under the pressure of continuous change, the ability for personal reflection and the ability to make independent decisions are also vital for a teacher.

Continuous professional development, both at an individual and at the work community level, demands that a teacher has an ability to self-assess and regulate his/her own actions. Critical self reflection is not only essential at the individual level, but also at the organisational level. In this way, communication becomes an essential tool, which enables a common understanding to be formed among the work community.

Development of the educational environment also requires skills related to the use of knowledge. The issues related to the use of knowledge are connected to teacher's work ethics. In the same way that the planning of learning processes and learning environments are connected to the issues that mirror a teacher's idea of the future goals, the use of information and knowledge is also related to value choices. These are apparent when a teacher chooses an area to research and develop and is committed to promote the issues that s/he sees important.

## 5. Summary

The main change trends of Finnish society, their influence on education and accordingly teachers' competences have been summarized in the table 1. The table shows in a nutshell what kinds of competences are emphasized at the moment in Finland. The described teachers' competences are not only essential in Finnish society but similar demands and needs have been raised up in all parts of Europe.

**Table 1. The main changes in Finland and teachers' competences**

<b>Changes in operational environment</b>	<b>Impacts on education</b>	<b>Teachers' competencies</b>
<b>Social and cultural change</b> -migration -fragmentation of society -pluralistic communality based on social and cultural exchange	-education system offers all members of society a solid general education or vocational training. -the education system promotes and maintains values which favour communality and the acceptance of difference, as well as encourages active	-Learner centred approach skills -Social and interaction skills -facilitation learning skills of the diverse students

<ul style="list-style-type: none"> <li>-change of values</li> <li>-information society, use of new tech</li> </ul>	<ul style="list-style-type: none"> <li>membership of civil society.</li> <li>-Inclusion in information society, all citizens have access to technical devices and skills in their use.</li> </ul>	<ul style="list-style-type: none"> <li>- ICT skills</li> </ul>
<p><b>Demographic and labour developments</b></p> <ul style="list-style-type: none"> <li>-labour force decreases</li> <li>-immigration increases</li> <li>-jobs are not created or they are created abroad</li> </ul>	<ul style="list-style-type: none"> <li>-All members of youth age groups receive post-compulsory and post-secondary vocational / professional education</li> <li>-the knowledge and skills of the adult labour force are upgraded,</li> <li>-adult education and training services are increased and the recruitment of immigrants is intensified.</li> </ul>	<ul style="list-style-type: none"> <li>-developmental approach skills</li> <li>-teaching and facilitating learning skills</li> </ul>
<p><b>Developments in labour demand</b></p> <ul style="list-style-type: none"> <li>-With the change in production structures, the content of work will change in all jobs.</li> <li>-Knowledge demands will grow.</li> <li>-All jobs will require proficiency in information and communications technology.</li> <li>-all occupations will increasingly require language and communication skills, cooperation skills and creativity.</li> </ul>	<ul style="list-style-type: none"> <li>-to further raise the level of education and knowledge.</li> <li>-responding to the labour demand both in knowledge-intensive occupations</li> <li>-the right quantifications and a better matching of initial and adult education and training.</li> </ul>	<ul style="list-style-type: none"> <li>-contextual skills</li> <li>-skills to update professional knowledge of your own field</li> <li>-developmental approach skills</li> </ul>
<p><b>Regional development</b></p> <ul style="list-style-type: none"> <li>- trend towards regional concentration will continue</li> <li>-regional disparities will grow, large differences between regions</li> </ul>	<ul style="list-style-type: none"> <li>-welfare and competitiveness is based on the vitality and innovativeness of the regions, which is promoted by means of regionally comprehensive education and research activities.</li> <li>- securing basic resources in all parts of the country,</li> <li>-coordinating the development aims of national education and science policy and regional policy,</li> <li>-stepping up cooperation with local working life and other stakeholders,</li> <li>-linking education and research with regional industrial and welfare strategies,</li> <li>-intensifying regional foresight,</li> <li>-extending the international infrastructure in the regions, and enhancing links</li> </ul>	<ul style="list-style-type: none"> <li>-developmental approach skills</li> <li>-contextual skills</li> <li>-cooperation and networking skills</li> </ul>

	between immigration and education policies.	
<b>Globalisation and internationalisation</b> -division of labour at the global level, - growing competition. -Labour mobility increases -the major production factors, labour and capital move freely. -stronger multiculturalism in all societies.	-Education supply across national borders grows increasing international education -the principles of sustainable ecological, social and economic development will be stressed in the development of education and research -Finland has to define its own profile in its own strong knowledge areas. -a better response to immigrants' special educational needs. -internationalisation is one means available for responding to challenges stemming from globalisation.	-cooperation and networking skills -interaction skills -ICT skills

The changes that have taken place in the society generate new opportunities for education, schools, teachers and students. Dooly and Villanueva (2006) state that internationalization is a key dimension in teacher education. Internationalisation can make possible to use better ways global resources like expertise, equipments and information. International projects, teacher and student exchange programmes and many other kind of collaboration are reality already but partnerships, joint activities will increase. Cultural diversity requires intercultural awareness and communication skills which are more and more important in the near future.

Also, ICT brings a variety of opportunities for all citizens. Austin (2006) suggests that ICT could promote social inclusion and act as a bridge-builder between different communities and nations. The fact is that people can work together despite of the location and time and accessibility to ICT and through it has developed greatly.

Life-long learning is reality and the role of teachers' further and continuing education is of the utmost importance. Therefore, the Ministry of Education of Finland (2004) has defined the education policy priorities in teachers' continuing education as following: management, evaluation and the development of the work community in educational institutions; management of social problems; health education; the use of information and communications technology in teaching; on-the-job learning and school industry contacts; and education relating to multiculturalism.

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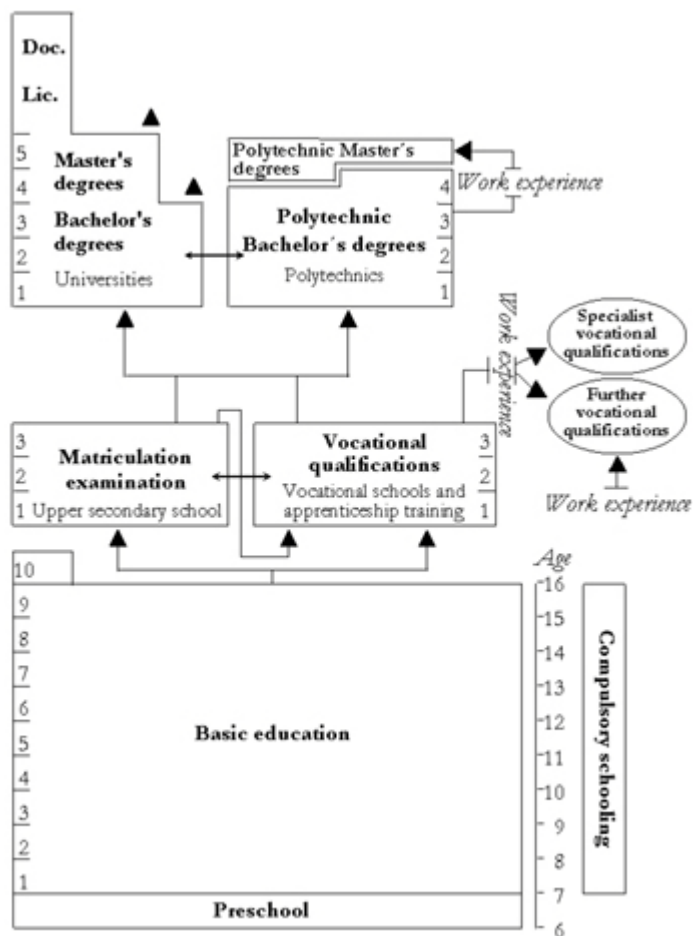
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## Appendix 1.

### The Education System of Finland

The Finnish education system is composed of nine-year basic education (comprehensive school), preceded by one year of voluntary pre-primary education; upper secondary education, comprising vocational and general education; and higher education, provided by universities and universities of applied sciences. Adult education is available at all levels.



Vocational teacher education is located in the education system after Bachelor's and Master's degrees. In addition the applicants must possess three years work experience in their professional field. Vocational teacher education colleges are a part of the universities of applied sciences.

Pre-school education is intended for six-year-olds, who will start their compulsory education in the following year. Participation in pre-school education is voluntary, and it is provided in day care centres and in pre-school classes operating in connection with comprehensive schools. 90 % of the entire age group participates in pre-school education.

Basic education is free general education provided for the whole age group.

Upper secondary education consists of general upper secondary education and vocational upper secondary qualifications. Approximately 92 % of those who completed basic education in 2003 continued directly to general or vocational upper secondary school. Completion of upper secondary education is considered to be the minimum requirement for performance in working life and lifelong learning

General upper secondary education is general education that prepares students for the matriculation examination. General upper secondary schools give general education to students aged about 16-19. They continue the basic education teaching task and provide eligibility for further studies at the higher level. The general upper secondary school ends in the matriculation examination which yields eligibility for all higher education studies.

The principal objective of vocational programmes is vocational competence. Vocational upper secondary education and training is provided in vocational schools and in the form of apprenticeship training in the following fields of education, comprising of nearly all fields in working life:

- Humanities and Teaching
- Culture
- Social Sciences, Business and Administration
- Natural Sciences
- Technology and Transportation
- Natural Resources and Environment
- Social and Health Care Services and Physical Education
- Tourism, Catering and Home Economics

The Finnish higher education system consists of two parallel sectors: universities of applied sciences and universities. Universities are characterized by scientific research and higher education based on it. Universities of applied sciences are working life oriented and operate on the basis of higher expertise requirements set by working life. Studies at university of applied sciences provide a practically oriented alternative to traditional university studies.

The educational requirement for universities of applied sciences is the completion of general upper secondary school or a vocational upper secondary qualification.

The majority of universities of applied sciences are multidisciplinary, meaning that they provide education in several fields of study.

Adult education is provided at all levels of education. Adults can study for a general education certificate or for a vocational qualification, or modules included in them, take other courses developing citizenship and work skills, or pursue recreational studies. Profession-specific specialisation studies, other educational services for adults in universities of applied sciences, and higher university of applied sciences degrees give the opportunity to enhance professional competence after obtaining a university of applied sciences degree.

Current key areas for development are

- The Information society
- Teaching mathematics and natural sciences
- Language teaching and internationalisation
- Raising the quality and the education level
- Cooperation between education institutions and working life
- Basic and in-service training of teachers
- Lifelong learning