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WHAT KIND OF COMPETENCE TEACHERS NEED IN THE YEAR 2020?

¿Qué tipo de competencias necesitan los profesores en el 2020?



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Resumen:

La educación es uno de los valores clave en la sociedad moderna. En los últimos años los resultados de PISA han estado en el centro de muchas discusiones. Una cuestión que se ha planteado con frecuencia es: ¿por qué los estudiantes finlandeses obtienen, año tras año, excelentes resultados. En este artículo tratamos de reflexionar sobre estos resultados. En primer lugar, se introduce al lector a los cambios que han tenido lugar en el sistema educativo en Finlandia durante los últimos 50 años, y en la orientación actual de la educación finlandesa. En segundo lugar, se describen los cambios en la formación del profesorado y de los componentes comunes de los programas de formación de docentes finlandeses. En tercer lugar, se discute la importancia de la ética docente. Además, tratamos de responder a la pregunta: ¿qué tipo de maestros y con qué competencias son necesarios para el año 2020, con el fin de mantener la buena calidad de la educación. Es evidente que vivimos en un mundo que cambia rápidamente, y por eso tenemos que mirar hacia el futuro con el fin de estar preparados para enfrentar los nuevos desafíos que se presentan.

***Palabras clave:** Sistema finlandés de educación, competencias del docente, formación del profesorado, ética docente.*

Abstract:

Education is one of the key values in the modern society. In recent years the Pisa results have been in the centre of many discussions. One question that has been frequently raised is: why the Finnish students have, year after year, excellent results. In this article we try to look behind these results. First, we introduce a reader to the changes that have taken place in Finnish education system during the last 50 years, and to the modern steering system of Finnish education. Second, we describe the changes in teacher education and the common components of Finnish teacher education programs. Third, we discuss the importance of teacher ethics. In addition, we try to answer the question: what kind of competence teachers need in 2020 in order to maintain the good quality of education. It is obvious that we live in a rapidly changing world, and for this reason we have to look into the future in order to be ready to meet the new challenges when they occur.

Key words: Finnish education system, teacher's competence, teacher education, teacher ethics

1. Introduction

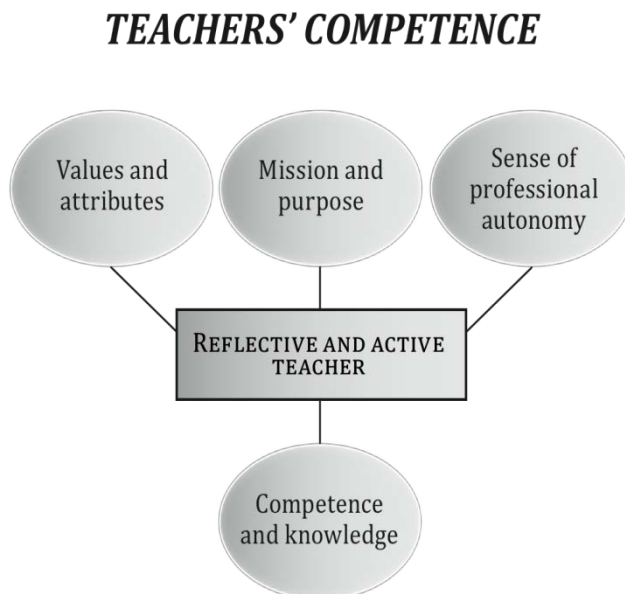
During the past fifty years there has been a significant change in the level of Finnish people's education. Until the 1960s, the level of educational achievement in Finland, being comparable to that in Malaysia or Peru, was considerably lower than in other Scandinavian countries, Denmark, Norway, and Sweden. At that time only ten percent of adult Finns had completed more than nine years of basic education and a university degree was uncommon. Today Finland is one of the top ranked OECD nations on the international PISA assessments. Researchers suggest that the most important explanation to this significant change is the high quality of the Finnish teacher education. Excellent education has had a central role in Finland's transformation from a traditional industrial-agrarian country into a modern innovation-based knowledge economy (Sahlberg, 2010). To be able to keep this position, we still need to develop the Finnish education to meet the challenges in the future world. As we live in a rapidly changing world, we have to be prepared to meet new challenges.

To confront the challenges of the 21st century more effectively we have to pay more attention to defining and assessing global competence in teaching and learning. On the one hand, we have to define how we understand the concept competence, and on the other hand how it is connected to other concepts such as ability, knowledge, and skill. (Mortenson, 2011) This question is not new - already 1997 the OECD launched the Definition and Selection of Competencies (DeSeCo) programme and the Programme for International Student Assessment (PISA). According to DeSeCo competence is more than just knowledge or skills. It involves the ability to meet complex demands by drawing on and mobilizing psychosocial resources (including skills and attitudes) in a particular context. According to the European Commission's Cedefop glossary (Cedefop, 2008) a skill is the ability to perform tasks and solve problems, while competence is the ability to apply learning outcomes adequately in a defined context (education, work, personal or professional development). Competence is not limited to cognitive elements (involving the use of theory, concepts or tacit knowledge); it also encompasses functional aspects (involving technical skills) as well as interpersonal attributes (e.g. social or organizational skills) and ethical values. (Ananiadou & Claro, 2009; Rychen, Saganik & McLaughlin 2003). As Halinen (2011, p. 77) has stated: "*In order to act competently in a given situation, we must be able to make use of the knowledge and the skills we possess*".

In this article, we aim to describe teachers' competencies in Finland in a European context. Over the years the education system as well as the curricula and teacher education programmes have been changed several times. We introduce these changes shortly in order to

construct the competencies needed by 2020. In Figure 1, we describe the connections between the main concepts as we see them in this article.

Figure 1. Teacher’s competence



2. Short history of Finnish education system

Until 1970s’ Finland had a binary school system, also called a parallel school system. In practice, this system was divided into elementary school or primary school level consisting of grades 1 to 6, and secondary or grammar school, which was divided in two levels; middle (junior secondary) school that lasted five years, and upper secondary or senior secondary school that lasted three years. After finishing elementary school the majority of children went to civic school. However, after the fourth grade of elementary school it was possible to apply to grammar school (also called secondary school or high school). Many grammar schools used the numerus clausus method to limit the number of their students. That means that all students could not continue to upper secondary school. Elementary school was free of charge for all pupils but some of the grammar schools were private, and in them the students had to pay an annual tuition fee. In Finland, the compulsory education is 12-year long and children enter school at the age of seven (see Figure 2).

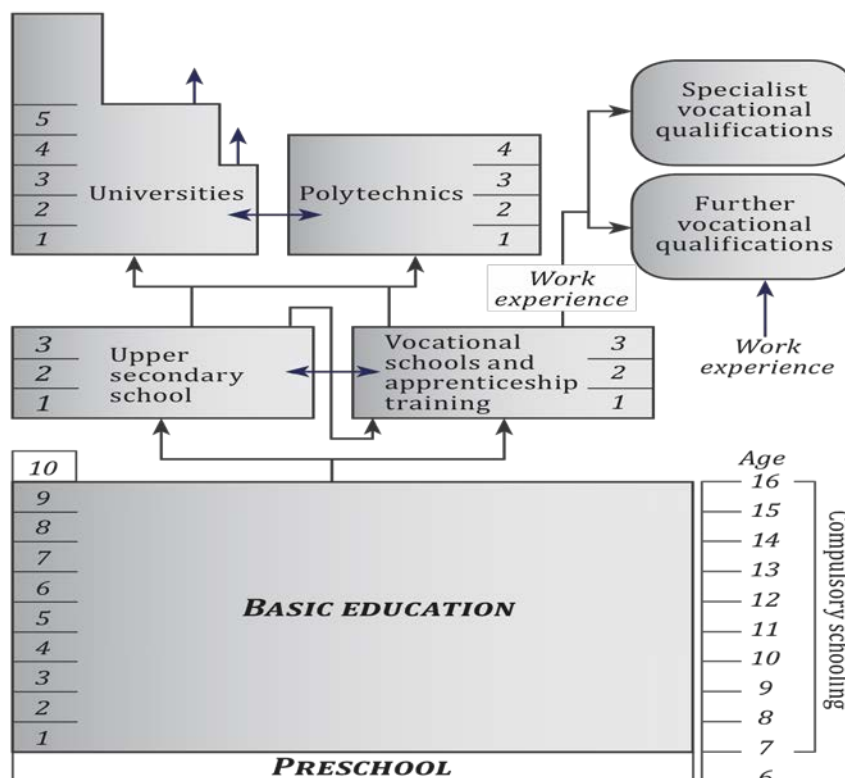
The Act on Basic Education Reform 1968 started the largest reform in the Finnish history of education. The year 1972 was significant. Then the comprehensive school system was started in schools in northern Finland, and by 1976 also the schools in southern Finland had adopted the new system. This meant that all the children studied their first six school years at the lower stage and continued in the upper stage for three years. After this, they could continue their education in a vocational school or in a senior secondary school. The latest change in the Finnish educational system took place at the beginning of 1998 when the lower stage and the upper stage were combined as basic education, which covers the compulsory education years as shown in Figure 2.

Apart from being a system the Finnish comprehensive school is a matter of pedagogical philosophy and practice. An essential part of this philosophy is the principle of

equity, which is a central premise of Finnish education policy. Consequently, efforts have been made to guarantee all population groups and regions of the country with equal educational opportunities. (Väljjarvi et al. 2007) Basic education is governed by the Basic Education Act (628/1998) and the Basic Education Degree (852/1998) and the Government Degree on the General National Objectives of Lesson Hours in Basic Education (1435/2001). The purpose and objectives of general secondary education have been set out in the General Upper Secondary Schools Act from 1998 (629/1998).

Figure 2. The Finnish education system (Väljjarvi et al. 2007)

THE FINNISH EDUCATION SYSTEM

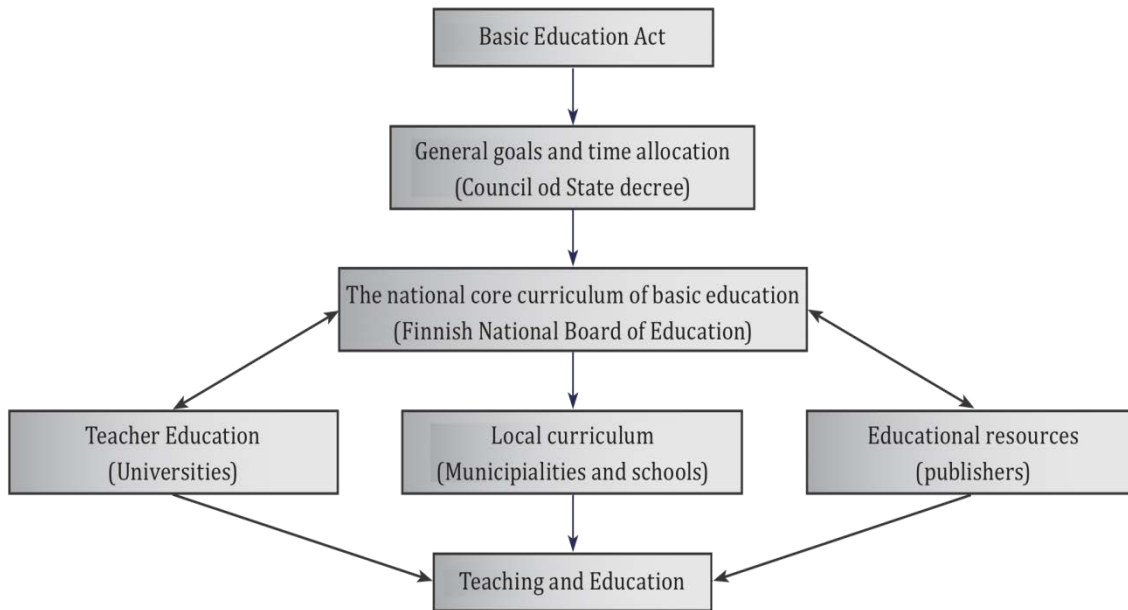


The changes in the Finnish education system required the rewriting of the curricula for comprehensive school and senior secondary school. The new curricula will be put in practice in 2016. The first versions have now been completed and opened for public opinions. Figure 3 shows the steps of the Finnish curricula process.

The Finnish National Board of Education sets the Finnish national core curriculum. It includes the objectives and core contents of different subjects, as well as the principles of pupil assessment, special needs education, pupil welfare, and educational guidance. The principles of a good learning environment, working approaches as well as the concept of learning are also addressed in the core curriculum. Statutes determine the core subjects, which all pupils study. The government determines the national objectives for education and the number of classroom hours allocated to each subject. At comprehensive schools, all pupils study the same core subjects with similar instructional contents. Learning takes place in heterogeneous groups. This requires a flexible, school-based and teacher planned curriculum along with student centred instruction, counselling, and remedial teaching. (National Core Curriculum for Basic Education 2004.)

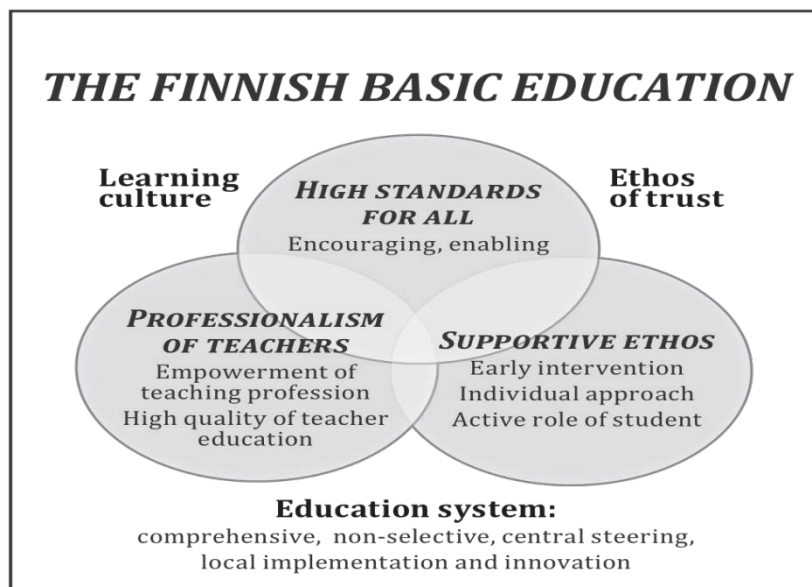
Figure 3. *The steering system of Finnish basic education (Vitikka, Krokfors & Hurmerinta 2012)*

THE STEERING SYSTEM OF FINNISH BASIC EDUCATION



The first national core curriculum in 1970 was strongly centralized. After that it has been reformed three times, in 1985, 1994 and 2004. Moreover, the reform of early intervention strategies was added in 2010.

Figure 4. *The Finnish basic education (Lankinen 2010)*



When planning the curriculum and selecting contents, textbooks, learning strategies, methods and assessment devices the teachers take into account students' own interests and choices. About 20% of classroom hours are reserved for optional subjects, such as foreign languages, sports, art, and music. In addition, the student and his or her parents can choose integrated or in-depth courses or applied studies in the core subjects. In grades 1 - 6, the

instruction is mainly provided by class teachers and in grades 7 - 9 by subject teachers. In grades 7 - 9, the pupils have a tutor, one of the teachers assigned to the overall responsibility of one group. (National Core Curriculum for Basic Education 2004)

As mentioned earlier the Finnish education is in the reform process. The four objectives for the reform of the Finnish basic education 2020 (Figure 4) are to 1) clarify and enhance the mission and integrity, 2) ensure the high level knowledge and skills, 3) strengthen the individual support and guidance, 4) clarify the principle of providing basic education (Lankinen 2010).

3. Changes in teacher education in Finland

During the past 40 years there have been many changes also in teacher education due to the changes in the curricula. The turning point of the Finnish teacher training can be seen in 1971 when the kindergarten, elementary and secondary school teacher education were transferred to universities through the Teacher Education Law. Also the subject teacher education was connected to teacher education units more closely by expanding pedagogical studies. Gradually, the qualifications of teacher education became higher and the first class teachers finished their Master’s degree in 1984-1985. (Niemi 2000.) Most recent notable change in the field of teacher education took place in 2005. According to the Bologna agreement, the education given at universities should be based on two main cycles, the undergraduate and the graduate (Bachelor’s degree and Master’s degree). When graduating from the university kindergarten teachers get a Bachelor’s degree and basic education (class) teachers and secondary school (subject) teachers get a master’s degree. Table 1 shows the components of the teacher education programs for primary school teachers and Table 2 for secondary school teachers in Finland.

Table 1. *Main components of the teacher education programs for primary school teachers (Niemi & Jakku-Sihvonen, 2006; Niemi 2012)*

PRIMARY SCHOOL TEACHER EDUCATION PROGRAM	Bachelor’s degree 180 ECTS	Master’s degree 120 ECTS	TOTAL
Class teacher’s pedagogical studies (as a part of major in education)	25 (including supervised teaching practice)	35 (including a minimum of 15 ECTS supervised teaching practice)	60
Other studies in a major in education	35 (including a BA Thesis, 6-10)	45 (including a MA Thesis, 20-40)	80
Subject matter studies for comprehensive school teachers	60		60
Academic studies in a different discipline, minor	25	0-35	25-60
Language and communication studies including ICT, optional studies	35	5-40	40-75

1 ETCS = 28 hours of student’s work in studies including lessons, contact hours, examinations, and all independent and collaborative activities.

Table 2. *Main components of the teacher education programs for secondary school teachers (Niemi & Jakku-Sihvonen, 2006; Niemi 2012)*

SECONDARY SCHOOL TEACHER EDUCATION PROGRAM	Bachelor's degree 180 ECTS	Master's degree 120 ECTS	TOTAL
Subject teacher's pedagogical studies (minor)	25 –30 (including supervised teaching practice)	30–35 (including a minimum of 15 ETCS supervised teaching practice)	60
Academic studies in different disciplines (major)	60 (including a BA Thesis, 6–10)	60–90 (including a 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

1 ETCS = 28 hours of student's work in studies including lessons, contact hours, examinations, and all independent and collaborative activities.

The quality of teachers and their salaries is closely related to the status and academic level of teacher education (Toom et al. 2010). It is important to notice that salaries are not the main motive to become a teacher. According to Sahlberg (2010) high social prestige, professional autonomy, and the ethos of teaching as a service to society and public good seem to be more important factors in Finland. Because the competence requirement for a kindergarten teacher now is Bachelor's degree there have been discussions to raise it to Master's degree. At the moment, one can complete Master's degree also in early education in those teacher education units that provide kindergarten teacher education. Blömeke (2006) points out that for instance in Germany the Bachelor's and Master's degree structures fundamentally affect both the organization of teacher education and the traditional thinking of what the teacher education is about.

A teacher's profession is very popular among the students who have graduated from high school, but to get into teacher training is a very hard and competitive process. For instance, only one in ten applicants will be accepted annually to primary school teacher training programmes. The ratio is a little higher among all categories of teacher education; about 25 % from about 20,000 applicants are selected (Sahlberg, 2010).

At the beginning of the 1990s, there was discussion about whether teacher education should be moved to vocational institutions. As a consequence of this discussion, teacher education units connected research to teacher education. Academic education with a research-based approach of Finnish teachers has now existed for 30 years. Finnish teacher education with its Master's degree is rather exceptional in comparison with teacher education in other European countries (Toom et al. 2010).

In Anglo-American educational research a shift to research on teacher thinking took place in the 1970s (Clark & Peterson 1986). Although this trend also influenced Finnish educational research, Finns have their own theoretical background and research tradition in

what is called teacher's pedagogical thinking. The idea of a didactically thinking teacher aimed to make teacher education more professional and raise its academic status. At the end of the 1970s, Master's level teacher education programmes replaced the less academic class teacher degree. Later, the concept of a didactically thinking teacher was broadened to a more comprehensive view of teacher's work (Toom et al. 2010).

In research-based teacher education all the courses are integrated with research. For this reason, students have opportunities as well for self-directed reflection as developing a personal practical theory of the teaching process. In addition, teacher students produce their own research in the form of Bachelor's and Master's theses. The goal is that students develop skills and knowledge they need to complete their studies, observe their pupils, and analyse their thinking. When making their Master's thesis, the students become familiar with different research methods. During teaching practice, they observe and analyse their own and other students' teaching (Toom et al. 2010).

4. The Importance of Teacher Ethics

The way teachers in Finland act with the students of different grades and ages is defined according to the same principles. The rules for teachers have been set by the Board of Ethics and they comply with the principles of the Human Rights and the Convention on the Rights of the Child and humanity. These rules are also based on the curricula and laws for pre-, primary-, secondary- and vocational school set by the Finnish Ministry of Education National Board of Education 2004 (Board of Ethics in Finland 2010; OAJ 2010).

Teaching profession is based on the principle that the teachers are experts who have a special mission in the community. For that reason, their training has to be of top quality. It is important that the citizens feel confidence in the teachers' high level of competence. Teachers' ability to conduct professionally is on the one hand based on their education and on the other hand on the value of their profession. A teacher's lack of expertise cannot be compensated with his or her high ethical principles or vice versa. A teacher's profession includes responsibility that requires constant maintenance of professional skills. It also necessitates a special sensitivity to recognize the work-related ethical problems and the ability to act in these situations with high level of professional ethics. (Board of Ethics in Finland 2010; Finnish National Board of Education 2004; OAJ 2010).

It is necessary to distinguish the legal and ethical issues of the teacher's ethics. The laws and norms define the basic duties and responsibilities of a teacher. The curriculum determines the extent and content of instruction. While professional practices are controlled by laws, regulations and standards, professional ethics are not based on compulsion or external control, but the internalization of moral perception and the demands of the profession. For this reason, the teacher's ethical principles are an important basis when aiming to put in practice the UN Declaration of Human Rights. (Finnish National Board of education 2004; Board of Ethics in Finland 2010; UN's Human Rights 1948; Convention on the rights of the Child 1989).

Often the results of teaching are not seen until after a long period of time. As good learning experiences promote lifelong learning, the teacher has an important role in providing these positive experiences. It is also essential to support the learner's self-confidence and strengthen social solidarity. A teacher's work involves providing education and good teaching and learning opportunities for each student (Atjonen 2004; Kuusisto, Tirri & Rissanen 2012.).

In addition, the society expects the teacher to achieve the objectives of instruction. A teachers' work area is constantly expanding and this increases the need of working in multiprofessional teams (Tirri 1998; Board of Ethics in Finland 2010; Niemi 2004).

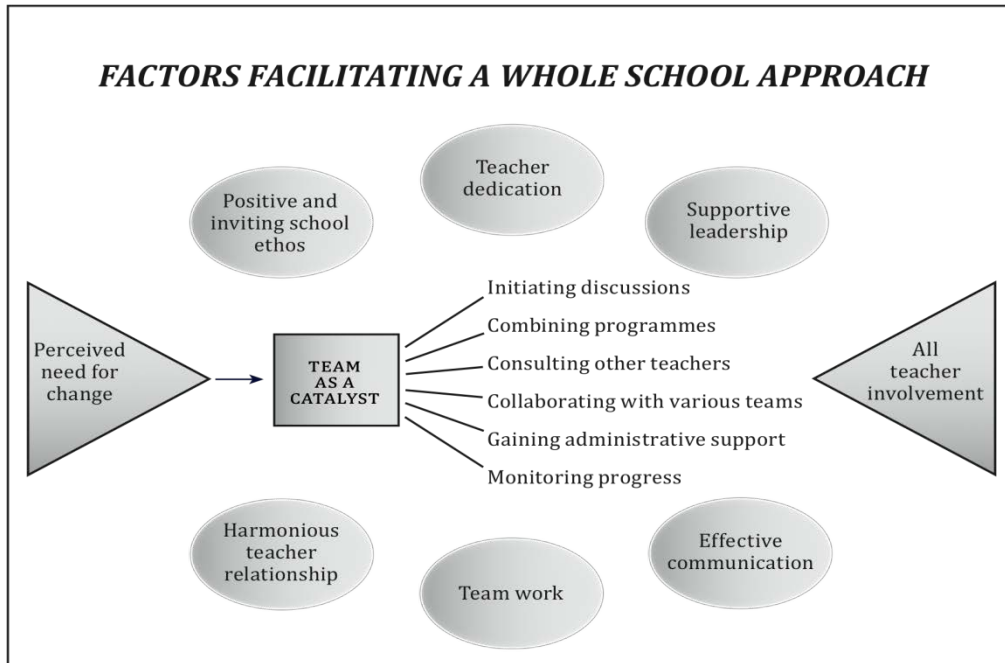
The change in the role of the teacher has brought the teacher closer to the learner. It also increases the teacher's responsibility. For instance, when assessing students, internalized ethics prevent teachers from using their position improperly. (Tirri 1999; Niemi 2011; Kuusisto, Tirri & Rissanen 2012.) Good work ethics is one of the most important teacher's resources. It controls the employment and work-related interactions. The motives and goals of teacher's work include ethical reflection and evaluation. In teachers' work ethics have always been an important part, but now these principles have made them visible (Niemi 2006; Niemi 2012; Osler 2012).

Teacher's ethical principles and underlying values according the Board of Ethics in Finland 2010 (see also Niemi 2011) are the following:

- **Dignity.** The ethical principles of treatment of a human are based on his or her intrinsic value. They involve that a learner is seen as a thinking and learning person. Human dignity has to be respected regardless of gender, sexual orientation, appearance, age, religion, social status, origin, opinions, abilities, and achievements.
- **Truthfulness.** Truthfulness is the core value of a teacher's primary work when guiding a learner to cope with his or her life and environment. The analytical approach requires open dialogue and the search for truth. Honesty to oneself and others as well as mutual respect for all, is a base of a teacher's profession.
- **Fairness.** A fair encounter of an individual learner and a group as well as fairness in all activities in school is essential. Justice includes, in particular, gender equality, the promotion of equality, and the avoidance of discrimination and favoritism. Justice has to be achieved in the distribution of benefits and burdens, violations and conflicts, as well as in the processing of learner assessment.
- **Responsibility and Freedom.** While teachers have the right to their own set of values their teaching responsibility is defined, for example, in legislation and curricula (OAJ 2010; Board of Ethics in Finland 2010).

The original model presented by Hui and Lo (1997) illustrated the factors facilitating a whole school approach in guidance but it can be well adopted to teaching. Figure 5 shows that a teacher has to be active in many ways within the school setting.

Figure 5. Factors facilitating teacher's work



5. Conclusions

The text above shows that there has been some kind of process going on in the field of Finnish education last 50 years, and the process is going on. The Ministry of Education set some future policy issues in its report *Teacher education 2020* (in Finnish only) as follows: (1) responding to changing society (2) offering systematic professional development for all teachers (3) creating a teacher education strategy for each university offering teacher education, and (4) strengthening research on teacher education (Sahlberg, 2010).

Not only the above mentioned issues but the curriculum process will affect in the near future the work of teachers. The National Core Curriculum 2016 (in process) includes: the values in basic education, learning concept, teaching tasks and national objectives, action culture of school and enhancing learning. It stresses the interaction and communication skills of students, ITC knowledge, multiliteracy, and self-actualization. Due to these the Finnish teacher education is confronting new challenges. When rewriting the curricula of teacher education the competencies of teachers needed in 2020 and beyond have to be taken account.

Teachers' profession is valuable and important in all societies. Times are changing and cause new demands. When the background of a teachers' work is strong and stable, the changes are welcome. New technology and social media require knowledge and new attitude of teachers. Teachers as adults will always be examples for children and students and their good values and teaching methods guarantee a good future for the next generation.

References

- Ananiadou, K. & Claro, M. (2009). *21st Century Skills and Competences for New Millenium Learners in OECD Countries*. OECD Education Working Papers 41. OECD Publishing. Retrieved in Dec. 9, 2012 from <http://dx.doi.org/10.1787/218525261154>
- Atjonen, P. (2004). *Pedagoginen etiikka koulukasvatuksen karttana ja kompassina*. Turku: Suomen kasvatustieteellinen seura.
- Board of Ethics in Finland 2010.
- Blömeke, S. (2006). Globalization and educational reform in German teacher education. *International Journal of Educational Research*, 45, 315-325.
- Halinen, I. (2011). Competence approach and its pedagogical implications. In L. Jääskeläinen & T. Repo (Eds.) *Schools reaching out to a global world. What competences do global citizens need?* Publications 2011:34. Helsinki: Finnish National Board of Education, 76-81.
- Hui, R.C.C. & Lo, E.K.P. (1997). A Whole-School Approach to Guidance: A Hong Kong Experience. *Pastoral Care in Education*, 15 (2), 22-40.
- Jakku-Sihvonen, R. & Niemi, H. (Eds.) (2006). *Research-based Teacher Education in Finland - Reflections by Finnish Teacher Educators*. Research in Educational sciences 25. Finnish Educational Research Association.
- Kuusisto, E., Tirri, K. & Rissanen, E. (2012). Finnish Teachers' Ethical Sensitivity. *Education Research International*. Volume 2012, Article ID 351879. Hindawi Publishing Corporation.
- Lankinen, T. (2010). Basic Education Reform in Finland - How to develop the top ranked education system? Presentation in Building Block of Education Whole System Reform Conference September 13-14, 2010, Toronto, Canada. Retrieved in Dec. 10, 2012 from <http://www.edu.gov.on.ca/bb4e/finlandEn.pdf>.
- Mortenson, D. (2011). Defining and assessing global competence in teaching and learning. Harvard Dialogues on Global Education. Cambridge, MA: Harvard Graduate School of Education. Retrieved in Dec. 9, 2012 from <http://www.gse.harvard.edu/blog/think-tank-global-ed/2011/04/defining-and-assessing-global-competence-in-teaching-and-learning.html>
- National Core Curriculum for Basic Education. Helsinki: Finnish National Board of Education.
- Niemi, H. (2012). The societal factors contributing to education and schooling in Finland. In H. Niemi, A. Toom, & A. Kallioniemi (Eds.) *Miracle of education. The principles and practices of teaching and learning in Finnish schools*. Rotterdam: Sense Publishers, 19-38.
- Niemi, H. (2012). Opettajan vastuun rajat ja rajattomuus sosiaalisen median keskellä. In H. Niemi & R. Sarras (Eds.) *Tykkään tästä! Opettajan ammattietiikka sosiaalisen median ajassa*. Juva: Ps-kustannus, 23-37.
- Niemi, H. (2011). Järkeä, tunnetta ja elämän tarkoitusta - koulu elämää varten. In T. Purjo & E. Gjerstad (Eds.) *Arvojen ja tarkoitusten pedagogiikka*. Tampere: Non Fighting Generation (NFG), 142-159.
- Niemi, H. (2006). Opettajan ammatti - arvoja ja arvottomuutta. In A.R. Nummenmaa & J. Välijärvi (Eds.) *Opettajan työ ja oppiminen*. Koulutuksen Tutkimuslaitos. Jyväskylä: Jyväskylän yliopisto, 73-94.
- Niemi, H. (2000). Teacher education in Finland: current trends and future scenarios. Keynote Speech. Conference Proceedings from Loule Conference. Algarve, Portugal, May 2000.

- Niemi, H. & Jakku-Sihvonen, R. (2006). Research based teacher education. In R. Jakku-Sihvonen & H. Niemi (Eds.) Research-based teacher education in Finland. Reflections by Finnish teacher educators. Turku: Finnish Educational Research Association, 31-50.
- OAJ. (2010). Opetusalan ammattijärjestö. Trade Union of Education in Finland.
- Osler, A. (2012). Teaching for Inclusive Citizenship, Peace and Human Rights. In P. Cowan & H. Maitles (Eds.) Teaching Controversial issues in the Classroom, Key Issues and Debates. Chennai, India: Continuum, 71-83.
- Rychen, D. S., Saganik, L. H. & McLaughlin, M. E. (Eds.) (2003). Definition and Selection of Key Competencies. Contributions to the Second DeSeCo Symposium. Swiss Federal Statistical Office.
- Sahlberg, P. (2010). The Secret to Finland's Success: Educating Teachers. Stanford University, Stanford Center for Opportunity Policy in Education. Research Brief, September 2010. Retrieved in Dec. 10, 2012 from <http://edpolicy.stanford.edu/sites/default/files/publications/secret-finland's-success-educating-teachers.pdf>
- Tirri, K. (1998). Koulu moraalisenä yhteisönä. Helsingin yliopiston opettajankoulutuslaitoksen tutkimuksia 187. University of Helsinki: Department of Teacher Education.
- Tirri, K. (1999). *Opettajan ammattietiikka*. Juva: WSOY.
- Trier, U. P. (2003). Key Competencies in OECD Countries - Similarities and Differences. Twelve Countries Contributing to DeSeCo: A Summary Report. In D.S. Rychen, L.H. Saganik, & M.E. McLaughlin (Eds.) 2003. Definition and Selection of Key Competencies. Contributions to the Second DeSeCo Symposium. Swiss Federal Statistical Office.
- Toom, A., Kynäslähti, H., Krokfors, L., Jyrhämä, R., Byman, R., Stenberg, K., Maaranen, K. Kansanen, P. (2010). Experiences of a Research-based Approach to Teacher Education: suggestions for future policies. *European Journal of Education* 45 (2), Part II, 331-344.
- United Nations (1948). *Universal Declaration of Human rights*. Retrieved in <http://watchlist.org/wordpress/wp-content/uploads/Universal-declaration-of-human-rights.pdf>
- United Nations (1989). *Convention on the Rights of the Child*. Retrieved in <http://www.ohchr.org/en/professionalinterest/pages/crc.aspx>
- Vitikka, E., Krokfors, L. & Hurmerinta, E. (2012). The Finnish National Core Curriculum: Structure and Development. In H. Niemi, A. Toom & A. Kallioniemi (Eds.) *Miracle of Education*. University of Helsinki.
- Väljärvi, J., Kupari, P., Linnakylä, P., Reinikainen, P., Sulkunen, S., Törnroos, J. & Arffman, I. (2007). The Finnish success in PISA - and some reasons behind it 2. University of Jyväskylä, Institute for Educational Research.