Key Competences For Lifelong Learning In Finnish VET Context

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ABSTRACT

The European Parliament and the Commission have made a recommendation that here be eight key competencies for lifelong learning. The Finnish National Board of Education has made Finnish version of those competences (LLL) in which there are eleven different LLL competencies in all our 52 vocational qualifications.

My aim is to determine how familiar young students are with LLL competencies. We can and will offer our students a lot of practical training in schools and companies, so they’ll become more skillful technically. In companies you need to upgrade your skills and competencies all the time. Now is the right time for us to think of how we can take care of youngsters so that they will have the kind of competences that will enable them to upgrade their skills and competencies in the future as well. In Finland this is much more important than in many other countries, we have just 5.4 million people and the structure of our industry has changed dramatically during (the) last ten years. This is the reason we need problem solving, innovation and communication skills also known as LLL competencies to be able to manage in the future. Many of these competencies are very abstract and difficult to understand and learn. We can offer familiar environment for youngsters to learn LLL competencies, they have possibility to use e-learning for that. In my study I will try to find out how well it works in the Finnish VET.

Keywords: lifelong learning, skills, competences, assessment e-learning

Finland has been a member of the European Union since 2005 and EU recommendations have basic roles for Finnish national laws and regulations. In this case the basic recommendation is 2006/962/EY , made by European Parliament. Key competences for lifelong learning made by the EU are:

- communication in the mother tongue
- communication in foreign languages
- mathematical competence and basic competences in science and technology
- digital competence
- social and civic competences
- sense of initiative and entrepreneurship
- cultural awareness and expression.

These key competences were basic information when the Finnish National Board of Education made new regulations to all Finnish National qualification requirements in co-operation with employers’, employees’ and student unions. Other bodies as representatives of working life take part in the curriculum work as advisers and consultants. The Finnish National Board of Education has revised all national requirements of vocational qualifications, which have been in use since August 2010.

National qualification requirements constitute a legal norm for educational institutions. Their purpose is to reflect the objectives of education policy, to determine the requirements for nationally uniform vocational competence and the capabilities for learning to learn and function as a citizen. In addition, qualification requirements must also function as the basis for the evaluation of national learning outcomes.

Qualification requirements for upper secondary vocational qualifications are common to education and training of young people and adult students. In this research my point of view is that of curriculum-based training that we normally offer to youngsters that are of 16 to 19 years of age. The scope of the qualifications is three years, 120 credits (40 credits per year and 1 credit is equivalent to 40 hours of study) (Minister of Education; law 630/98 and act 811/98).

There are 52 upper secondary vocational qualifications including a total of 120 different study programs (Government of Finland; act 213/1999 and 616/2001). The revision includes the structure of the requirements, the organisation of studies, the requirements of skills as well as the targets and criteria of assessment. The revised requirements stress, for example, that local curricula are approved by the education providers, the VET colleges are owned and operated mostly by municipalities or groups of municipalities, in Finland are approx. 200 independent, multi-branch providers of VET. The Ministry of Education grants permissions to education providers determining their sectors of education and total student numbers, (total amount of students is limited by Minister of Education). This solution helps students to acquire skills which can be utilised in different fields and transferred from profession to profession; study modules should be flexible and there should be a possibility for various combinations; and, of course skills should serve labour market needs but also promote lifelong learning. Education providers decide which vocational qualifications they offer within the sectors. The sectors are Natural Sciences, Natural Resources and the Environment, Technology, Communication and Transport, Social Science, Business and Administration, Tourism, Catering and Domestic Services, Humanities and Education, Culture and Social Services, Health and Sport.
All these 52 vocational qualifications have same key competences for lifelong learning. I use the vocational qualification in information and telecommunications technology as an example of key competences (NBE regulation 22/011/2009). The list of the key competences for lifelong learning (NBE regulation 22/011/2009) is: Learning and problem solving, Interaction and cooperation, Vocational ethics, Health, safety and ability to function, Initiative and entrepreneurship, Sustainable development, Aesthetics, Communications and media skills, Mathematics and natural sciences, Technology and information technology, Active citizenship and different cultures.

The importance of this theme is also indicated by the fact that EU has named its program covering international mobility and cooperation at home and abroad the Lifelong Learning Program (LLP). The program covers the whole spectrum of education, targeting pupils and students; teachers, trainers and other teaching staff; as well as organisations and other bodies involved in education and training.

The Lifelong Learning Program comprises four sub-programs: Comenius for schools, Leonardo da Vinci for vocational education and training, Erasmus for higher education, and Grundtvig for adult education. A ‘transversal’ part of the program relates to areas (such as language learning) that are relevant to all levels of education, and Jean Monnet actions stimulate teaching and research projects on European integration (EU Lifelong learning programme activity report 2009-2010).

**ASSESSMENT OF KEY COMPETENCES FOR LIFELONG LEARNING**

A curriculum of Finnish vocational education and training includes; vocational studies and on-the-job learning which vary according to the qualification (90 credits; min. 20 credits on-the-job), core subjects, common to all qualifications (20 credits, out of which 16 are compulsory and 4 are optional).

These are studies in:
- the native language
- the other national language and a foreign language
- mathematics
- physics and chemistry
- social, business and labour-market subjects
- health education; physical education
- arts and culture; environmental studies
- ICT; ethics, other cultures
- psychology and entrepreneurship.
(NBE regulation 22/011/2009)

Above we can see lot of similarities with key competencies for lifelong learning.

Students may freely choose free-choice studies (10 credits) from those on offer either at their own institution or at some other upper secondary level institution (general or vocational) and include them in their qualification according to their own interests or vocational orientation; these may also include appropriate work experience or a focus on personal interests, for example further studies. Vocational upper secondary studies grant the student eligibility to further his/her studies in universities or universities of applied sciences. (NBE regulation 22/011/2009)

The education includes a period of on-the-job learning, during which students familiarize themselves in practical assignments required in the occupation and achieve the core objectives of the occupation as laid down in the curriculum. All 120-credit upper secondary vocational qualifications include a period of on-the-job learning with a minimum scope of 20 credits; maximum amount is normally 60 credits. One of the aims of on-the-job training is to enhance young people’s employment opportunities.

**STUDENT ASSESSMENT**

The national core curricula contain criteria for student assessment. The students’ knowledge and skills are assessed and the students are given feedback on their progress at sufficiently regular intervals both during and after the studies. The students’ acceptable performances are graded on the following scale: excellent (3), good (2) and satisfactory (1).

Vocational skills demonstrations were introduced as a way of assessment as of August 2006 and they mostly take place during the periods of on-the-job learning.

Assessment is conducted by the teachers and, for on-the-job learning periods and vocational skills demonstrations, the teacher in charge of the period or demonstration together with the on-the-job instructor, workplace instructor appointed by the employer or the demonstration supervisor. The assessment must guide and motivate the students as well as develop their abilities in self-assessment. (NBE regulation 22/011/2009).

**Example of Assessment**

I will use the same example that I have used earlier the vocational qualification in information and telecommunications technology.

Compulsory modules for all; Basic tasks in electronics and ICT, 30 credits.

**Ways of demonstrating vocational skills**

The student demonstrates his/her vocational skills by working in tasks in the electronics field. Work is performed to such an extent that vocational skills may be deemed to meet the vocational skills requirements.

In a vocational skills demonstration, the following are demonstrated:
- the mastery of work processes
- the mastery of working methods, equipment and tools
- the possession of underpinning knowledge
- the key competences for lifelong learning (see previous column).

If vocational skills required by the module cannot be demonstrated in full in a vocational skills demonstration
or competence test, they must be supplemented by some other type of competence assessment, such as interviews, assignments or other methods. (NBE regulation 22/011/2009).

**MAIN TARGET OF RESEARCH**

Key competencies for lifelong learning are common in whole Europe. From our point of view they are of even more importance to Finns than to some other countries in Europe. In Finland we have just 5, 4 million people and the structure of our industry has changed dramatically during last ten years. We have our own language; just 5% of the population speaks Swedish which is a common language with other Nordic countries. Everyone knows what has happened to Nokia and we have also lost many of our paper mills. To manage in future as well as we have done earlier we really need take care of the key competencies for lifelong learning. This fact is the base of this study. My aim is to find out how well Finnish vocational education and training recognize lifelong learning abilities during the studies that last three years. I’ll give an example; previous page is a list of what is demonstrated and I bring out the key competences for lifelong learning using italic font. The table comprises the assessment criteria, together with the assessment targets, for three levels of competence. In vocational upper secondary education and training, the assessment targets also constitute the core contents of the module. This is good and assessment looks easy to carry out. What is the problem? The table of assessment criteria consists of just four of the key competences for lifelong learning. Where are the rest? The total amount is eleven. National Board of Education states in national core curriculum: The key competences for lifelong learning are included in the objectives of the requirements of vocational qualification modules and their assessment criteria. The key competences for lifelong learning to be assessed separately consist of the following: learning and problem solving, interaction and cooperation, vocational ethics and health, safety and ability to function.

**The Research**

The requirements of vocational qualification modules and the objectives of core subjects have been defined as learning outcomes (knowledge, skills, and competence). This forms the basis for describing the targets of assessment through mastering the work process, work method, equipment and material as well as underpinning knowledge and the key competences for lifelong learning.

These key competences for lifelong learning are taken to mean such competence as is needed in continuous learning, in seizing future and new situations as well as in coping with the changing working life environment. They are an important part of vocational skills and reflect an individual’s intellectual flexibility and ability to manage different situations. They increase the vocational civilisation and civic readiness needed in all fields and help the students to keep up with the changes in society and working life as well as to act under changing conditions. They also play a major part in one’s quality of life and development of personality.

All of us who are working with vocational education and training know how teachers behave. Technical teachers are mostly interested in technical skills, core subject teachers consider their own subjects the most importance. How can we be sure that key competencies for lifelong learning are totally part of the learning and assessment process? Technical and subject skills are good background for lifelong learning too. The world is changing rapidly and you have to upgrade your skills regularly after year. To do so you need very good lifelong learning skills and competencies. Another reason is globalisation.

**Research Method**

I have read different national core curriculum and chosen some of them for my research. In Finland we have eight different sectors of vocational qualifications, I’ll use the most important sector in my research, the base of importance is need for education. A lot of people will retire from work, for example from social and some technical sectors. To replace them we need more education.

The method I planned to use is similar as the method used by Finnish Professor’s (Ruohotie, Nokelainen and Korpalainen) modeling of vocational excellence (MoVE the University of Tampere 2007-2008). The amount of interviews ought to be 250 – 300 both students and teachers. The interviews will start in the end of 2013.

**E-LEARNING**

E-learning is the main theme of the conference. In this case e-learning is a very good possibility to learn and use it as suitable tool creating students competencies for lifelong learning. Learning to use ICT is one of the most important skills in the future. We can use social media (Facebook, Twitter etc.), and we like to communicate with others using mother or foreign languages. All over the world we have different learning platforms for e-learning. For example in my college we use a platform called Moodle and we have built a lot of material that students can use to learn key competencies for lifelong learning.

Other research supporting lifelong learning. Finland is very active in developing its education system. Finnish universities are active members of two different research programs with is similarities to my ideas. ITL research is looking at 21st century skills:

- collaboration, knowledge construction, self-regulation, real-world problem-solving and innovation, the use of ICT for learning, skilled communication.

**APPENDIX 3**

The Programs global sponsor is Microsoft´s Partners in Learning. Another program is ATCS Assessment and teaching of 21st century skills: Ways of thinking.

Ways of working, Tools for working, Skills for living in the world. Cisco, Intel and Microsoft announced that they would join forces to sponsor ATC21S as a collaborative research project to accelerate education reform.

Each of the three companies has a long history of supporting education initiatives and believes that, as employers of tomorrow’s talent, they share a common interest in applying their collective resources and experiences to improve learning and education.
Microsoft is very active also on a national level. In Finland and it is just now negotiating new license agreement together with The Finnish Association for the Development of Vocational Education and Training AMKE. More than 80% of Finnish providers of vocational education and training are member of AMKE. The association and Microsoft have common target to develop Finnish vocational education and training also from the point of view of ICT.

CONCLUSION

Lifelong learning is one of the most important processes on a national level and globally. There are many different programs running this sector and hopefully we can share information of those together using new technology. I am just starting my research and the most interesting questions are how the students and teachers see the importance of LLL and which learning outcomes of key competencies for LLL are. Other point of view is looking these things theoretically. After these I have to think can I find out some suggestions we can improve our curriculums and teachers education.

REFERENCES


