



Haaga-Helia  
University of Applied Sciences

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Päivi-Katriina Juutilainen (eds.)

# VOCATIONAL EDUCATION WITH A FINNISH TOUCH



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# Foreword

■ As Finland's Ambassador for Education Export, I have attended a good number of high-level meetings with ministers and other key actors during the past year. In every meeting – be it in Egypt, Ukraine, Vietnam or any other country – vocational education and training has been touched upon. All governments have the improvement of vocational education systems high on their agenda. They are looking for ways to respond to the needs of today's world of work and to open new job opportunities for young people.

Finland has been investing heavily in developing its vocational education system in recent decades. The focus has been on the development of curriculum, qualifications and teacher training. Over the years this investment has yielded good results. The clearest sign is the fact that roughly 50 per cent of young people in Finland choose the vocational education path upon completing their basic education.

Despite this success of vocational education there is an appetite to continue with reforms. In fact, an ambitious vocational education and training reform is underway. The law was passed in June 2017 and its implementation will commence in 2018. The reform aims to improve the effectiveness of vocational education through the introduction of individual study paths and even closer collaboration with working life.

Given the success and reform agenda of Finland's vocational education and training, it is very positive that Finnish actors are willing to share the know-how cumulated. This publication is an excellent example of sharing the Finnish experiences and thus is most welcome. Covering both the journey that Finland has undertaken and the main success factors, such as teacher training and collaboration of policy makers and the world of work, makes it a valuable contribution to discussion beyond Finnish borders.

Another way to share know-how is to engage in transnational education co-operation on a commercial basis. Several Finnish vocational teacher and education institutions are already working with partners around the world and more is to come. Activities are already ongoing in countries including Brazil, China, Kazakhstan and South Africa. The Finnish government is strongly encouraging and supporting this type of transnational co-operation wherever possible.

No one is under the illusion that it would be possible to copy the Finnish vocational education system, as such, to another cultural and social context. Instead, many believe that by drawing on the Finnish lessons of the past forty years it could be possible to fast-track the development of vocational education systems. For Finnish actors this transnational co-operation is, besides the commercial potential, an opportunity to learn from others and benchmark the quality of the Finnish education. A true win-win situation!

I recommend this publication for all those seeking inspiration from the Finnish vocational education and training system and policy. You are in the hands of real experts so enjoy its content, which is based on thorough analysis and real expertise!

*Marianne Huusko*

Ambassador for Education Export

Ministry for Foreign Affairs





# Introduction

■ The significance of education is recognised in many societies, as it brings hope and vision for people's future. Education is fundamental for developing society and assimilating persons into a cohesive living environment. It develops the world of work, brings new ideas for business life and has a positive influence on the economy.

This publication, *Vocational Education with a Finnish Touch*, concentrates on vocational education and training (VET) in Finland. It sheds light on the historical development of vocational education in Finland, the habits and role of VET in modern-day Finland and certain aspects concerning the future. Vocational education and training is a versatile phenomenon. It encompasses practical education for vocational skills in secondary school education, upper secondary education and apprenticeship education, as well as various types of adult education and tertiary education. In this publication, the focus is on initial upper secondary level education. There is, however, not always a clear division between the education of young students or adults. Also, initial vocational education supports tertiary technical education (universities of applied sciences).

The purpose of this publication is to fill the void of information available internationally regarding vocational education and training in Finland. Also, there has been increased interest in developing VET in many countries. For example, the Organisation for Economic Co-operation and Development (OECD) has placed emphasis on developing education, also VET. The OECD has defined criteria for good vocational education. This publication is for an international audience; for all institutions and individuals, civil servants, directors, teachers and students who are interested in current vocational education and training and developing education in the future. With this publication, we wish to share information about VET in Finland and increase discussion about the importance and quality of vocational education and training.

This publication comprises nine articles written by a total of eight different writers. The articles look at the historical development of VET, administration, pedagogical methods, co-operation between education and the world of work, apprenticeship education, teacher training, support of students during their studies, quality assurance and studying alternatives

after initial upper secondary vocational education. All article authors are VET specialists and have research experience and concrete work experience in the sector. The foreword of this publication is written by Ms. Marianne Huusko, the Ambassador for Education Export, Ministry for Foreign Affairs. I wish to thank her for supporting this publication. Also, I would like to take this opportunity to thank all of the article authors for their tireless work.

This publication has been edited and published by Haaga-Helia University of Applied Sciences, School of Vocational Teacher Education, Helsinki, Finland. The editorial board of this publication has included research and development manager Dr. Annica Isacson, principal lecturer Dr. Päivi-Katriina Juutilainen and director Dr. Jari Laukia, the chairman of the editorial board. Research and development coordinator Ms. Johanna Luostarinen has worked as the secretary of the editorial board. Ms. Nina Finell has taken care of editing this publication and Mr. James O’Sullivan has checked the language. Their work has been important indeed for this publication’s success.

Helsinki 1.9.2017

*Jari Laukia*

Dr, Director

School of Vocational Teacher Education

Haaga-Helia School of Vocational Teacher Education





# From shadows to brightness – the development of vocational education in Finland

*Jari Laukia*

## Introduction

“Academic thinking changes ideas and ideologies. Academic thinking together with practical working skills changes life and reality.”

*Johan Vilhelm Snellman (J. V Snellman kootut teokset, 52–53).*

The development of education is connected to societal change. More than one hundred years ago Finnish philosopher and statesman Johan Vilhelm Snellman (1806–1881) put emphasis on academic education, along with practical or vocational education. This article focuses on the development of vocational education and training in Finland. How has this education been developed in the country? What have been the aims and the objectives of the education and training? How has vocational education been organised in Finland?

The concept of vocational education and training (VET) in this article means education that prepares students for the world of work and entrepreneurship. VET includes all practical education fields: technology, communication and transportation; the business sector; agriculture; hotel; catering; social services and healthcare; humanities and education. Practical skills have been possible to learn with apprenticeship education, school-based education or different kinds of on-the-job learning systems. The traditional way to learn practical skills needed in working life and tradesmen skills has been apprenticeship-type education organised by city guilds. However, the guild system disappeared in Finland in the latter part of the 19th century. In this article, the focus is on the development of educa-

tion in the 20th and 21st centuries, how education was organised and by whom, and how curriculums and pedagogical methods were developed.

The universal phenomenon is that academic education is more appreciated than vocational and practical education. Today, education is facing many challenges when society and the economy are changing rapidly. Is it possible to have an education culture where both education sectors are appreciated? How is vocational education facing the challenges of the future?

## Agrarian culture meets the industry and cities

Finland was part of Sweden until 1809 when, after the Napoleonic wars in Europe, it became part of Russia. Especially in the latter part of the 19th century, however, the country received a wide autonomy in domestic affairs. Finland received her own currency, the markka, in 1860 and liberal economic policy in 1879. In 1906, the estates had to leave their political power. Finland was among the first nations to receive a democratically elected parliament. All adults, male and female, received political rights (Klinge 2000, 80–86).

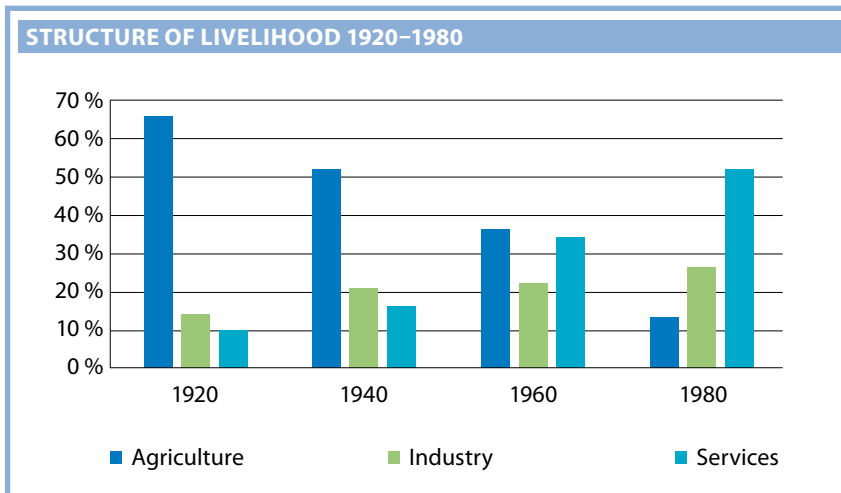


Figure 1. The development of economic structure in Finland 1920–1980 (Statistics Finland, työlliset toimialoittain).

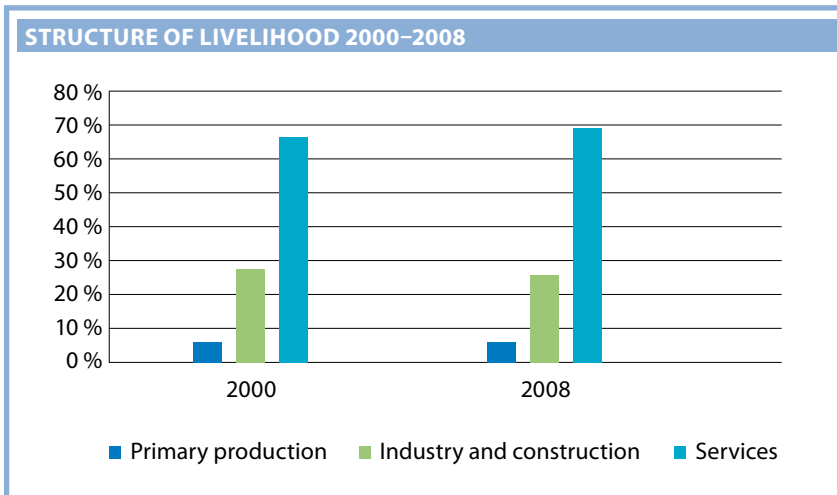


Figure 2. The development of economic structure in Finland 2000–2008 (Statistics Finland, työlliset toimialoittain).

Until the end of the 1950s, official economic policy concentrated on agriculture and animal husbandry. The ideal citizen was a farmer living together with his family on his own farm. However, industry and trade and city life were slowly challenging this vision. The forest industry and paper mills were established and the first industrial towns like Tampere, Kotka and Pori were born. Foreign trade increased, the first icebreaker, *Murtaja*, made it possible to conduct foreign trade also during the wintertime during the 1890s, and business life and transportation increased. Many families with small children moved from the countryside to the cities. There was a need to renew education.

## Education for different vocations

Folk school (elementary school) was developed in 1866 (last of the Nordic countries). Folk school teacher education began three years earlier. After the independence of Finland in 1917 and the civil war of 1918, the Parliament of Finland declared compulsory basic education in 1921. It was, however, not until the end of the 1930s when all children received at least four years of basic education.

The first modern education institutions offering education for practical skills and modern vocations were also developed at this time. The first commercial college was established in 1839 in the city of Turku. Agricul-

ture college was established in 1840, technical real school in 1847 and forestry college in 1861. Helsinki Real School changed to Polytechnic College in 1887 and became the Technical University in 1908. The first vocational school educating industry workers and for craftsman professions was established in Helsinki in 1899. After this, other vocational schools were established in other major towns. In 1920 there were 11 vocational schools for industry and craftsman professions, containing some 800 students altogether (Laukia 2013a, 11–12). In addition to this there were several institutions offering theoretical education in the evenings or weekends for adults already working in industry or handcraft professions.

For different professions and vocational education sectors, such as the business sector, agriculture, technical sector and so on, education developed separately. Vocational education was also governed by several different departments and ministries. Initially, Finland did not have a clear policy for vocational education. There were liberal-minded local politicians and businessmen who were interested in developing and establishing vocational schools and institutions.

## Great debate in the 1910s – school-based education or on-the-job learning

In the beginning of the 20th century there was great debate about vocational basic education, its aims and objectives and how it should be organised. The debate was between the representatives of industry and business sector and committees organised by the Government of Finland. The opinion of industry representatives was that vocational education should be connected to the world of work as much as possible. Students should learn practical skills in working places guided by worker instructors. Companies should receive financial support from the public budget for this work (Laukia 2013c, 85–91). Representatives from industry suggested a system that was similar to that organised in Central European countries like Germany and Austria, and which was later called the dual system (*dual schule*).

Several committees organised by the Government of Finland were planning vocational education from 1910–1920. Representatives in these committees observed education also abroad, especially in Germany, the Netherlands and the Scandinavian countries. The city of Munich in Ger-

many was an important place to visit. Professor Georg Kerschensteiner had developed student-centred pedagogical methods and so-called work school (*arbeit schule*) in Munich. Also the reformed pedagogical ideas of American John Dewey were known in Finland.

Committees estimated the aims and objectives of vocational education. Vocational basic education was for young students from 13–15 years of age. Many students came from labour class families. The role of the education was to give students basic skills for industry and craftsman professions. During after school education in the world of work, students would develop the specialist skills and competences needed in the world of work under the guidance of experienced workers. Another role of education was to assimilate young people into liberal society, educating good citizens who could take care of themselves and earn their own living. Education was offered to both males and females. However, the aims and objectives were different. Males received education for industry and tradesmen professions, and females were educated as housewives or servants.

The result of the great debate was that vocational education for young students was school-based. Vocational education in Finland was a combination of ideas of domestic education developers, such as Uno Cygnaeus, Mikael Soinen and Jonatan Reuters, and ideas received from abroad. Also, the local habits and level of industrialisation and business life had to be considered.

Schools included classrooms for theoretical education and workshops for practical skills learning. The duration of education was typically two years. The basic idea was that students were taught theoretical knowledge at school, such as Finnish language, mathematics, civics and basic skills for the world of work and after graduation they learnt special workmanship skills in working life (Laukia 2013c, 91).

Vocational schools educating workers for industry and craftsmanship professions were established mainly by municipalities or big industry. They received financial support from the Government of Finland. In the business sector, groups of businessmen also established education institutions. In 1923, the Parliament of Finland declared an act for apprenticeship-type of vocational education. This type of education has been effective mainly for adults; however, it has also been possible for young students. A special adult education institution was established in 1922. It offered vocational degree education and additional education for adults and company workers who wanted to learn new modern skills and competences.

## Expansion of vocational education

After the First World War, the independence of Finland in 1917 and the subsequent Civil War in 1918, there was a nationalistic sentiment in the country. International influence on education decreased. In the 1920s and 1930s, the amount of students in vocational education grew slowly. There were no major changes in the educational structure, which was developed in the beginning of the 20th century. Being an agrarian country, the Government of Finland placed more emphasis on developing basic education and gymnasium education than vocational education. Vocational adult education, however, developed more rapidly according to new regulations imposed in the beginning of the 1920s. As public schools were not being established, private big industry developed their own vocational schools to educate skilled and politically trustworthy workers.

In 1939, the first vocational education act was ordered in Finland. Because of World War II and political uneasy times nationwide in the 1950s (e.g. during 1951–1958 there were 12 different governments in Finland), development of vocational education was slow. More rapid development began in the 1960s. The economic structure in Finland was changing from an agriculture country to service and industry. Many people moved from the countryside to the cities (see figure 1 and 2) and they also changed their vocation and profession.

After World War II, many children were born. In the 1950s and 1960s they were at the age of post-folk school education. Small farms did not offer a living for them. Politicians had to admit that Finland needed to develop industry and services also through education. The law for vocational education was launched in 1958 (Stenström & Virolainen 2014, 9). The new law decreed that a vocational school had to be established in cities with more than 20 000 inhabitants. Smaller municipalities had to buy student places from the cities for their young students. A network of vocational education institutions covering the whole country was developed. Also, vocational teacher education was launched by law in 1957. The role of education was to develop society and the world of work and also assimilate students into society. Vocational education was not only a question of educating young students, but adults too.

Under the influence of these new regulations, the government's better financial situation and changing society and economical structure, the amount of vocational education students increased rapidly in the 1960s

and 1970s. In 1950, there were some 10 000 students in different vocational education institutions. By 1980 this number had risen to 53 000 students.

By the 1960s education had become more democratic. Separate vocational schools for males and females were unified. Also, it became possible for both sexes to apply for student places across all different education sectors.

## Vocational education under the Ministry of Education

During the great changes in education between the 1960s and 1980s, Finland became an education-focussed society. The parallel type of folk education was replaced by common nine-year basic education. Comprehensive school reform was implemented during 1972–1977. The eight-year folk school and five-year middle school disappeared and nine years of basic education (*peruskoulu*) was established. Basic education was compulsory for all children and education was roughly the same regardless of students' domicile or socioeconomic background (Stenström & Virolainen 2014, 12; Sahlberg 2015, 26–28).

Another change was the administrative shift of vocational education. The administration of vocational education had been divided under seven different ministries depending on the field of education. Those seven ministries encompassed education, agriculture, the interior, social affairs, transportation and defence, along with industry and commerce (Laukia 2013a, 14–15). The system was ineffective, as there were overlapping activities and there was no combined planning or development of vocational education. In 1966, the National Board of Vocational Education was established to take care of the administration of VET. In 1968, it was moved under the Ministry of Education. There was great debate regarding this. Some parties were concerned that vocational education was now ruled by pedagogy, not practical skills (Laukia 2013c, 237–240). However, until the beginning of the 1970s all vocational education, basic education and college level education was concentrated under the Ministry of Education.

The third change was the reform of upper secondary education in the 1980s. Nine years of basic education was compulsory. After basic educa-

tion, there was upper secondary education, which was divided into upper secondary general education (*lukio*) and vocational education. Students finishing their basic education could continue their studies either in general education or vocational education. The duration of upper secondary education was three years. The education system was flexible, and there were no educational dead ends.

Vocational education was divided into eight vocational education sectors:

- Humanities and education
- Culture
- Social science, business and administration
- Natural sciences
- Technology, communication and transportation
- Natural resources and the environment
- Social services, health and sport
- Tourism, catering and domestic services

The structure of the curriculum became uniform across all education sectors, to encompass vocational practical studies, vocational theoretical studies and general subject studies.

One important reform in the 1980s and at the beginning of the 1990s was the establishment of universities of applied sciences. Universities of applied sciences were developed based on higher vocational education colleges, such as technical college, business college, nurse education institutions etc. Universities of applied sciences opened a clear path for vocational education students to apply for a study place in university of applied sciences. It also became possible to continue studies from vocational education in scientific universities.

These great education reforms connected vocational education explicitly to Finland's education system.



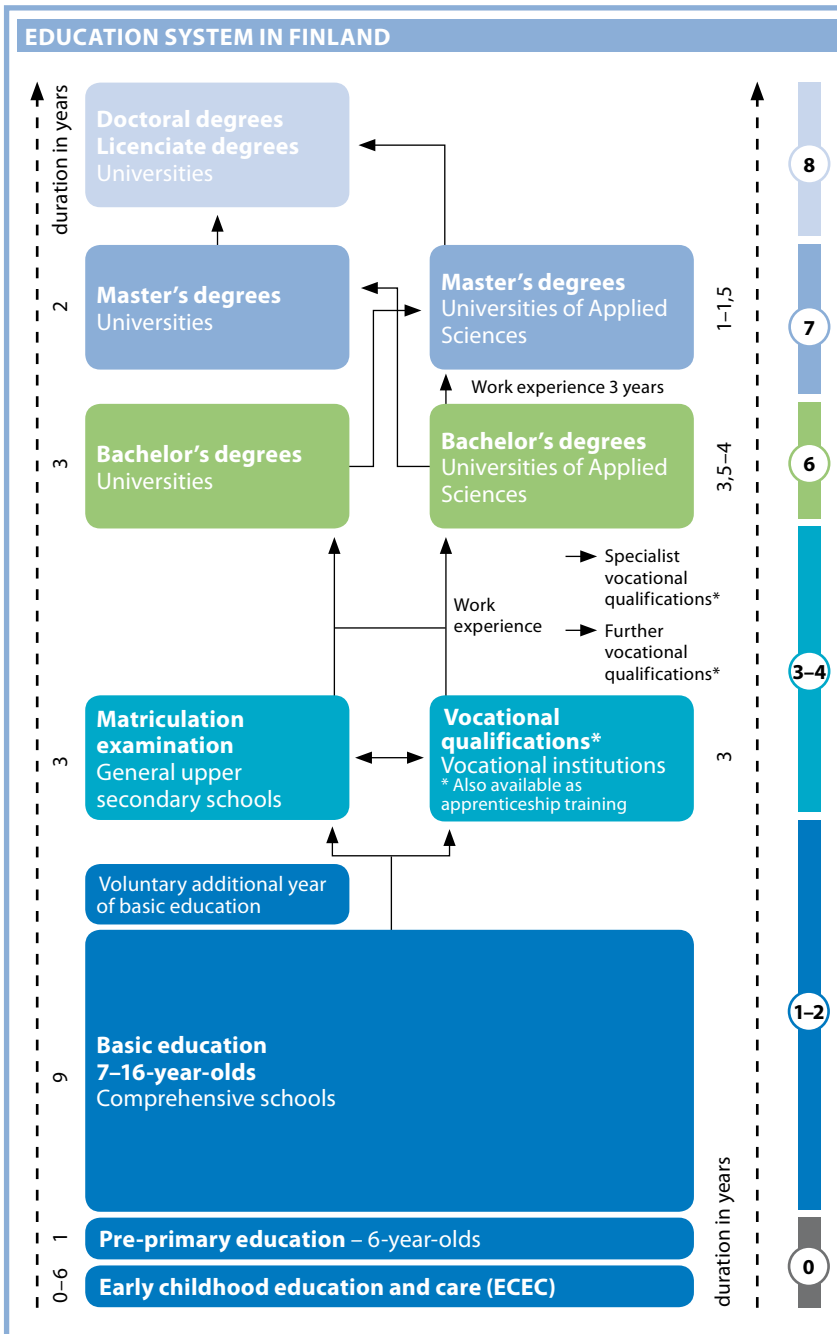


Figure 3. The education system in Finland.

Educational reform made in the 1970s and 1980s increased the number of students in vocational education. Appreciation of vocational education increased among young students, among their parents and in society in

general. In the beginning of the 1990s the number of students in upper secondary education decreased due to the establishment of universities of applied sciences. Some vocational education institutions became university of applied sciences and students were included in tertiary education student numbers.

The number of students is no longer increasing. In practice, there is a student place for all students interested in upper secondary education. In 2013, there were 170 836 students and in 2015 there was 166 967 students studying vocational basic qualification in vocational schools (Statistics Finland, appendix table 2).

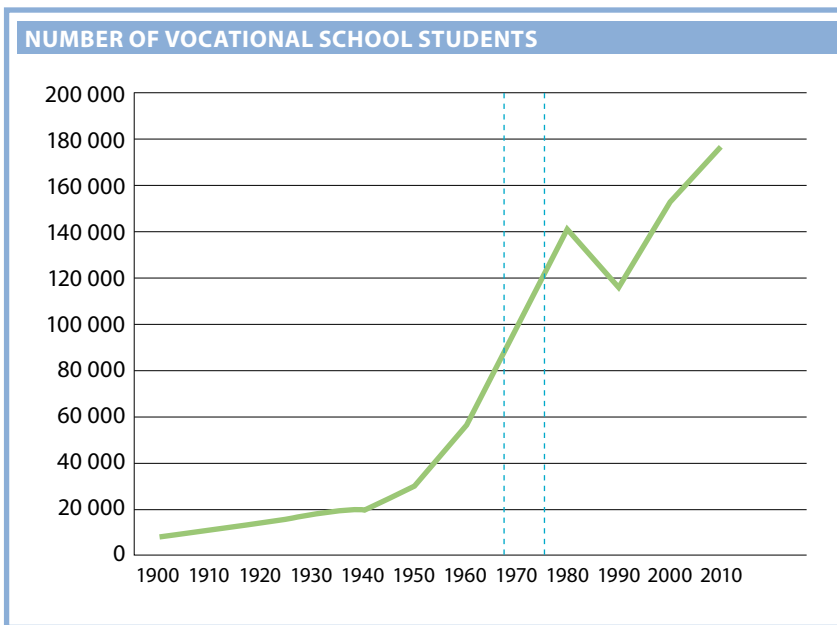


Figure 4. Number of vocational school students.

Great reforms in education always cause active discussion between different relevant actors. These reforms became possible with co-operation between political parties, representatives from the world of work, schools, the Ministry of Education, the Finnish National Agency for Education and labour unions.

## University of applied sciences – higher practical education

Higher vocational education in Finland was organised by several one sector-specific small colleges. There were separate colleges for business education, technical education, nurse education, agriculture, culture, trades and so on. The role of the universities of applied sciences was unifying dispersed higher vocational education. The world of work was changing and there was a need for specialists with versatile skills. The aim and objective of universities of applied sciences was also to increase the quality of vocational and technical education, establish bigger versatile higher vocational education units and to make education economically more effective. One reason for the UAS system was to offer another continuing education path for upper secondary general education students beside scientific universities.

Universities of applied sciences were developed on the basis of vocational colleges, tertiary technical education or vocational school education. The quality requirements of teachers were increased; teachers had to have master's-level degree education, and research and development work in order to undertake UAS teacher duties. At the moment there is a so-called dual structure in university education, which includes traditional scientific universities and universities of applied sciences (Educational structure).

A UAS bachelor level degree takes 3–4.5 years (180–240 cr) depending on the field of education. Master's education takes 1.5 years to obtain a degree (90–120 cr). Master's degree students must also have work experience. Scientific universities offer doctoral studies.

## Vocational education currently – attractive education

In 1995, Finland became a member of the European Union and began to use the euro as currency. Finland co-operates with other European Union countries in education. Finland, for example, follows the European qualification system (EQF). Upper secondary vocational qualification is at level four, university of applied sciences degree level six and master's degree level seven. However, each member country has its own education policy.

In Finland, there is a network of vocational education providers that covers all regions of the country. The Ministry of Education and Culture gives the authorisation for education providers to offer vocational basic education and vocational additional education. Additional education is mainly offered for adult students. At the moment there are approximately 135 vocational education providers in the country. A vocational education provider may be a local authority, a municipal training consortium, a foundation or other registered association, or a state company. Most of these are versatile education providers offering education for several education sectors. Education providers are supported financially by the government (Spotlight on Vet Finland, 2016) and education is free for students.

At the age of 15–16 years, at the end of their basic education, students apply for an upper secondary education studying place. Students are enrolled to studies according their motivation and how they have managed in their studies during basic education. Although only the nine-year basic education (*peruskoulu*) is compulsory for all students, some 95 per cent of students continue their studies in upper secondary general education or vocational education. It is very difficult to find a good workplace with basic education only. The educational policy of the Government of Finland is to offer an upper secondary student place for all students. Some 50 per cent of students finishing their basic education continue their studies in upper secondary general education and 50 per cent of students in vocational education.

The law of vocational education mentions several aims and objectives for vocational education. The role of vocational education is to increase vocational skills and competences of the population, develop the world of work, prevent unemployment and increase entrepreneurship (Laki ammatillisesta peruskoulutuksesta 1988/630). In addition, the aim and objective is to educate good citizens and to offer possibilities for continuing education.

## Curriculum and learning environments

The duration of vocational school education was two years at first. The curriculum included general subjects like mother tongue and writing, civics, mathematics, health education and vocational theoretical studies and workshop studies. The structure and contents of the curriculum were different depending on the school and the field of education. The study load

for students was approximately 40 hours per week. Co-operation between schools and the world of work was not very close. Education was school-based. Students and teachers could make some minor products for clients and the world of work. However, co-operation with companies was limited.

In the 1960s, a couple of months' training in the world of work became compulsory. In the 1980s and 1990s, the duration of education became three years across all vocational education sectors. Also, the structure of curriculum was unified. At the end of the 20th century, the world of work was changing rapidly. It became necessary to increase co-operation between education and the world of work. Six months on-the-job learning became compulsory for all education sectors. Students, however, were students of a school provider, and the school provider made a contract with the company about on-the-job learning. The company did not have to pay a salary for the students, because they were not official workers of the company. The skills demonstration system, where teachers, business life participants and students themselves estimated the quality of learning, became part of the education. This system also increased the co-operation between the education and the world of work.

Now, vocational qualifications are competence-based. This means that skills and competences of the programme have been defined in the curriculum, but education providers and especially teachers can decide together with students how they will achieve these skills and competences.

Vocational qualifications include the definition of skills and competences that students should achieve during their studies. It is a duty of teachers and education providers to decide what pedagogical methods and learning environments they use: classroom studies, workshop studies, on-the-job learning and learning at work. Pedagogical methods are versatile, however student-centred. On-the-job learning has increased. The Finnish model of vocational education is a so-called integrative model where on-the-job learning and school-based learning has been integrated.

The extent of vocational upper secondary qualification is 180 ect (European credit transfer system). One credit is estimated to represent 40 hours of study for a student. The education provider decides how the teacher's work has been resourced per credit point. Typically, education takes three years, but it is also possible to proceed quicker or slower according the personal studying plan of each student. Vocational qualification includes vocational studies, 135 cp. This also includes a minimum of

35 cp on-the-job learning. On-the-job learning can be longer in duration, but not shorter. Core subject studies, like communication and interaction competences, mathematical and natural science competences, social and labour market competences, social and cultural competences, are altogether 35 cp. Free elective studies are 10 cp (Teaching and learning in vocational and technical upper secondary education, Eurydice). Free elective studies can include more vocational studies, theoretical studies or studies from other educational institutions, depending on students' motivation and future plans.

A reform of the vocational qualification structure is planned for 2019. According to these new regulations, the vocational education structure will include 43 vocational upper secondary qualifications, 65 further vocational qualifications and 56 specialist vocational qualifications.

The Ministry of Education and Culture decides the general goals, extents and structure of curriculums in vocational education and training. The Ministry of Education and Culture decides the studies and their scope. The Finnish National Agency for Education (FNAE) decides the contents of VET education curriculums. In every vocational education field there is a national education and training committee working under the FNAE. In those committees, there are representatives from the world of work, education providers, unions and the FNAE. These committees prepare curriculums and makes suggestions for the FNAE and the Ministry of Education and Culture. So, curriculums are prepared together by education providers, the world of work and administration.

Some 70 per cent of students enter the workforce upon completing their vocational education, with the rest continuing with university studies. The appreciation of education is a key factor when young students are planning their future studies. In Finland, both vocational education and theoretical upper secondary education are appreciated. Students are different in theoretical and practical giftedness and motivation. Today, both of these are appreciated. In education, the motivation of students is important. If students can choose appreciated education that supports their motivation, learning outcomes are good. Also, the world of work appreciates vocational education. Vocational education is a good choice for students interested in practical skills and competences.

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# Administration of vocational education in Finland



*Juhani Pirttiniemi*

## Introduction

■ This article describes the structure of the administration of Finnish vocational education and training (VET). The administration of VET is centralised and decentralised: the state has a ruling role in the steering of VET education. VET providers have responsibilities to arrange education at local and regional level. In Finland, education is publicly funded so receiving VET is mainly cost free. The attractiveness of VET may partly be based on the co-operation between public funding and student support.

## Centralised and decentralised

VET education in Finland is predominantly public – financed by the state and the municipalities. VET policy is headed by the Ministry of Education and Culture. The national objectives of upper secondary vocational education and training, the qualifications framework and the core subjects are defined by the Government while the Ministry of Education and Culture decides on the specific details and scopes of qualifications. The Ministry of Education and Culture is responsible for specifying education policies and for regulating, steering and financing vocational education and training. This work is guided by policies determined in the Government Programme.

The Finnish National Agency for Education (known as the Finnish National Board of Education until 2017) co-ordinates national projects to develop education, training and teaching; monitors learning outcomes; and anticipates changes in educational and skills needs. It is an expert and development body that decides on the National Core Curricula and the Requirements of Competence-based Qualifications, determining the vocational skills requirements of qualifications and the methods of demonstrating competence.



VET is developed, delivered and assessed by listening to the needs of working life and in close co-operation with other stakeholders, such as education providers, teachers and students. At the national level representatives of working life and other key stakeholders are involved in making decisions on education policy. They also participate in a number of national partnership committees that contribute to the development of the VET qualifications, the anticipation of education and competence needs, and the planning of the national qualification requirements. At the local level representatives of working life also play a part in curriculum planning, planning and implementation of on-the-job learning and students' competence assessment.

VET providers decide on the provision of vocational education and training in the region within the limits of their authorisation from the Ministry. They decide independently on issues such as the kind of education and training provided and method of completion of these studies, as well as making decisions regarding the organisation of operations and the educational institutions maintained. VET providers take into consideration the educational needs of the world of work and the population of the region when they plan their operations. They prepare the vocational education curricula for the fields where education and training is provided based on the National Core Curricula.

## Shared responsibility

The Ministry of Education and Culture is responsible for the regulation, guidance and funding of VET and for making decisions about vocational qualifications and their scope. The Ministry also grants the education providers' permits to provide VET. The Finnish National Agency for Education, an advisory and development agency, makes decisions on the national qualification requirements defining the vocational skills requirements for the qualifications and the methods of demonstrating learning outcomes. It also forecasts education and skills needs and coordinates national education and training development projects.

Education providers play a key role in delivering education. Within the scope of their remit they make independent decisions on the provision of VET for their specific field, including the types of education provided, education delivery and the type of educational institutions maintained. Education providers determine local curricula and decide on the level and

type of staffing. When planning their educational offering providers take into account the educational needs of the local population and the employers.

Appointed by the Ministry of Education and Culture, the National Education and Training Committees are tripartite advisory bodies which ensure that a good dialogue is maintained between the world of work and VET education at a national level. The National Education and Training Committees contribute to the anticipation of competence needs and the development of the qualification system and the individual qualifications.

A key role in adult VET education is played by the Qualification Committees appointed by the Finnish National Agency for Education for the purpose of implementing competence-based qualifications. The Qualification Committees have been responsible for the organisation and supervision of competence-based qualifications. They monitor the performance of the competence-based qualification system in their fields and suggest system improvements where necessary.

Quality assurance in education and training is based on guidance, self-assessment and external assessment, not on strict controls by any central authority. Finland does not have in place a system of inspecting education or training provisions.

## Fewer VET providers in future

Municipal authorities, mostly allies of municipalities, maintain the majority of vocational institutions. Only 20 per cent of students are enrolled in institutions maintained by private organisations. “Funding criteria are uniform irrespective of ownership” (VET in Europe – Country report 2016).

VET providers have authorisation granted by the Ministry of Education and Culture to determine the fields of education in which they are allowed to provide education and training and to decide on their total student numbers. VET providers decide also which vocational qualifications and which study programmes within the specified fields of education will be organised at their vocational institutions.

One of the main aims at VET policy has been strengthening the network of VET providers. To enhance the service capacity of VET providers they have been encouraged to build bigger and stronger entities. These vocational institutions cover large VET services and development activities.

Thus vocational institutions offer initial and continuous training both for young people and adult learners. VET providers work in close co-operation with the labour market. Their role is to develop their own provision in co-operation with working places and to support competence development enterprises (VET in Europe – Country report 2016).

The main aim of vocational education during recent years has been the tendency to increase the flexibility of education and training. Consequently larger entities can offer enough vocational modules to ensure that learners can individualise their qualifications and choose studies that match changing learning needs.

Vocational education providers can organise their activities flexibly, according to the requirements of their fields or their regions, and decide on their institutional networks and other services. Decisions can differ between large cities and rural areas. The number of education providers has decreased in recent years. While there were 161 VET institutions in 2007 they numbered 126 in 2016. The state has supported this process since 2007 with five to 11 million euros per year (VET in Europe – Country report 2016).

## Public funding

Education is publicly funded. The public education system and education primarily provided through public tax revenue at all levels have been perceived as being a means to guarantee equal opportunities for education for the “entire population irrespective of social or ethnic background, gender and domicile.” The private funding is low in upper secondary VET education, below five per cent (VET in Europe – Country report 2016).

Education and training is mainly financed by the State and local authorities. State funding accounts for approximately 30 per cent of the total funding. VET providers decide on the use of all funds granted under the statutory government transfer system. In upper secondary VET, operating costs per student vary between 6 600 euros (apprenticeship training) to 29 000 euros (special education VET) in 2016 (VET in Europe – Country report 2016).

| VET FIELD  | 2010   | 2012   | 2016   |
|--|--------|--------|--------|
| School-based VET   |        |        |        |
| Humanities and Education   | 10 189 | 11 023 | 9 311  |
| Culture  | 11 520 | 12 274 | 11 172 |
| Social Sciences, Business and Administration                                     | 7 890  | 8 516  | 7 674  |
| Natural Sciences   | 8 204  | 9 017  | 8 052  |
| Technology, Communications and Transport   | 11 263 | 12 290 | 10 700 |
| Natural Resources and the Environment  | 15 880 | 17 136 | 14 433 |
| Social Services, Health and Sports   | 8 964  | 9 539  | 8 536  |
| Tourism, Catering and Domestic Services  | 10 909 | 11 665 | 10 295 |
| Rehabilitative instruction and guidance for the disabled at special institutions | 31 021 | 32 839 | 28 988 |
| Rehabilitative instruction and guidance for the disabled in mainstream education | 13 277 | 14 699 | 13 709 |
| Pre-vocational preparatory education for immigrants                              | 8 984  | 9 591  | 17 267 |
| Preparatory education for VET  | 9 245  | 9 365  | 17 267 |
| Apprenticeship training  | 5 766  | 6 179  | 6 606  |

Table 1. Operating costs euros/student in upper secondary VET by field (FNBE – Finnish National Board of Education. Statistics 2016).

The statutory government transfer is based on a unit price calculated per student. The unit price is based on specific fields and, in some cases, on the qualifications included in the field. The amounts of funding are influenced by each provider's student numbers in different fields and in different types of provision such as school-based programmes, apprenticeship training and special needs VET (VET in Europe – Country report 2016).

In the near future the proportion of funding will be based more on the provider's performance than it is currently. Now funding allocated on the basis of performance accounts for three per cent of the total amount of the government transfer. To determine the share of performance-based funding a performance index is calculated for each provider on the basis of the following indicators: graduate employment rate, transition to further studies in higher education, reduction in drop-out rates, VET completion rate, qualifications of teaching staff and human resources development (VET in Europe – Country report 2016).

Only a small part of training is provided outside the government-regulated sector. Those private vocational institutions which operate under the Vocational Education and Training Act and are supervised by the Ministry of Education and Culture receive government subsidies and have the right to award official qualification certificates (VET in Europe – Country report 2016).

## Mainly free of charge

Receiving VET or completing a qualification is mainly cost-free. Students are only charged for their books and other learning materials. They can have one free meal per day. School transport subsidies are available. In adult education, students are expected to pay a reasonable fee. In order to ensure equal educational opportunities full-time students can apply for student financial aid and loans (KELA – Social Insurance Institution of Finland 2012; FNBE 2014).

VET is funded by the budget of the Ministry of Education and Culture. The central and local governments provide part of the funding for vocational upper secondary qualifications while further and specialist vocational qualifications are fully funded by the central government. Funding for VET is based on nationally determined unit prices per number of students. The unit price changes depending on the year and the field of education. Education providers can use the annually received funds at their own discretion to plan and deliver education.

In addition to the unit-priced funding education providers also receive performance-based funding. The purpose of performance-based funding is to offer education providers incentives to continuously improve their performance and quality. The funding of VET will be changed during the next few years. The results of education, especially the working places and the further studies of VET students, will be in focus (Ministry of Education and Culture 2016).

## Equity and support

The educational policy objective is to guarantee equal educational opportunity for each individual. The purpose of the planning of upper secondary vocational education and training, along with the general education

provision, is to offer all students a place in upper secondary education at the end of their basic education. Finland has a regional VET provision with good national coverage. The majority of young people can access VET in, or close to, their hometown (Ministry of Education and Culture 2016).

A number of youngsters are offered preparatory training for VET after primary school (ninth grade). Such training is available for e.g. those in need of special support, immigrants and any young persons who have not made a decision about their career choices. Preparatory training provides young people with the opportunity to try out different fields of VET and strengthen their learning skills before entering a real programme (FNBE 2014). Vocational education and training starts at upper secondary level. Students who have successfully completed compulsory education are eligible for general and vocational upper secondary education and training. Student selection is mainly based on the students' grades on their basic education certificate. The selection criteria used by vocational institutions may contain work experience and other comparable factors including entrance and in some cases aptitude tests. (FNBE 2014; VET in Europe – Country report 2016).

More than 40 per cent of the each age group starts vocational upper secondary studies immediately after basic education. The nationwide application system (99 per cent of the age group fill the application) is common with the general upper secondary education. The biggest fields in vocational upper secondary studies are technology, communications and transport and social services, health and sports.

| FIELD OF VET                                 | 2011   | 2012   | 2013   | 2014   | WOMEN<br>2014 (%) |
|--|--------|--------|--------|--------|-------------------|
| Humanities and Education                     | 1 416  | 1 442  | 1 441  | 1 442  | 75.6              |
| Culture                                      | 4 126  | 3 958  | 3 764  | 3 612  | 64.6              |
| Social Sciences, Business and Administration | 9 939  | 9 086  | 9 531  | 9 731  | 63.1              |
| Natural Sciences                             | 2 058  | 1 979  | 1 870  | 1 921  | 15.9              |
| Technology, Communications and Transport     | 29 803 | 29 206 | 25 449 | 25 637 | 19.6              |
| Natural Resources and the Environment        | 3 940  | 3 987  | 3 949  | 4 151  | 56.9              |
| Social Services, Health and Sports           | 15 732 | 15 891 | 14 699 | 15 834 | 84.8              |
| Tourism, Catering and Domestic Services      | 8 245  | 8 359  | 7 561  | 7 388  | 67.6              |
| Total  | 75 359 | 73 908 | 68 264 | 69 716 | 51.2              |

Table 2. New students in upper secondary VET according to field of study (Statistics Finland).

The sizes of the different fields have remained relatively stable throughout the years even as some fields of VET show a rising trend. So, for example, in social services, health and sports the number of new students has grown by several hundred in the past few years (VET in Europe – Country report 2016).

Half of the students are female. The proportion varies greatly from field to field. Technology and natural sciences are still very male-dominated areas while health care and social services as well as tourism and catering are very female-dominated (VET in Europe – Country report 2016). The statistics have been quite constant in recent years.

Mostly the special education support (approximately 10 per cent of the students) is integrated to normal VET education. However seven vocational special education colleges provide facilities and services for students with severe disabilities or chronic illnesses. The total amount of these students is about 4 500. At vocational special education colleges the groundwork occurs in small groups and the main emphasis is on learning by doing. Students are offered large-scale individual guidance and support for their studies and everyday lives.

## Attractive choice

The general public's perception of VET is very favourable. The image of VET among Finnish youngsters is very positive. There is also a direct link

between the image of vocational education and training and the perceived quality of training. The vocational education and training offers high quality working life-oriented learning.

Vocational education and training has been developed as an integral part of the education system to lead to both employment on the labour market and/or further studies in either tertiary education or further vocational qualifications. For over 20 years Finnish educational policy has already sought educational pathways that are open from basic education to higher education with no dead-ends at any level or in any part of the formal system. Especially the development of polytechnics in the 1990s pushed this goal further and today the co-operation between secondary and tertiary VET is increasingly commonplace.

Skills competitions are an important tool for developing and benchmarking VET. The competitions help to raise awareness of the importance of professional excellence. They are a way to develop and create new teaching models as well as to increase the attractiveness of VET. They support career guidance, encouraging young people and their parents to consider VET as a viable option.

Finland's participation in WorldSkills, EuroSkills and Abilympics, as well as the national skills competition "Taitaja", is part of the development of VET education in Finland. These competitions in Finland are maintained by Skills Finland and carried out in co-operation with education providers and employers in order to develop excellence of skills, further competence development and improving the VET system at large.

## Next steps

In the rapidly changing labour market strong decisions in VET policy and administration are needed. This means powerful input and support for VET providers concerning lifelong education. The early vocational drop out of youngsters must be tackled in society. The transition from general education and unemployment to vocational education ought to be fast without breakouts. This means strong focus on educational and vocational expertise and guidance counselling.

The needs of vocational skills mean new vocational solutions between administration, VET providers and employers. The ability and professional competence of teachers, guidance counsellors and trainers are in focus. The administration must identify effective and adaptive ways how the



vocational providers and working life together can find new and flexible studying paths for VET students of all ages.

The important challenge of the administration is to activate communication between different education sectors (lifelong education). Primary education, secondary education and higher education have to work closely together and be in contact with the VET education and the world of work. Vocational education is nowadays a more important part of the entire education system than ever.

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# Vocational education and training in collaboration with the world of work



*Pentti Suursalmi*

## Introduction

■ This article highlights the current state-of-the-art Finnish basic vocational education and training (VET). The Finnish National Agency for Education (FNAE) has completed a very large curriculum reform at national level. Readers will obtain more information how this work has been done in co-operation with employer, employee, teacher and student organisations.

In the article I will describe some advantages that Finns have in vocational education and training system on a national and local level, from the point of view of Porvoo Vocational College, Amisto. Co-operation with the world of work is extensive and in the future it will be even deeper. In Finland, every student has their own study plan and this means that the education provider has to build an individual study path for everyone and undertake more co-operation with companies. Porvoo Vocational College, Amisto already has some pilot projects and is building common activities together with our industry partners. Within these activities Amisto is offering students a high level of vocational education and at the same time its industry partners will have well-educated and skilful workers. This is a win-win situation for everyone. At the end of the article are some case examples of the co-operation between vocational college and companies at a local level.

## Revision of the requirements together with the world of work at a national level

The qualification requirements are revised in a project set up by FNAE in co-operation with experts representing employees, employers and teachers. The National Education and Training Committees, which are tripartite bodies established for each occupational field by the Ministry of Education and Culture for a term of three years at a time to plan and develop vocational education and training, may also appoint an expert to the working group. In the course of its work, the expert group is obliged to consult other labour market experts. Once the expert group has completed a draft version of the new qualification requirements, the document will be sent out for a broad consultation process to representatives of unions, organisations, industry and VET providers. Following the consultation process, the qualification requirements are adopted as a nationally binding regulation by the FNAE.

Renewing and updating the requirements of every vocational qualification takes place every three years. By following the outlined structure the contents of Finnish vocational qualifications are kept up to date.

The Vocational Education and Training Act came into force on 3 October 2014 (Vocational Upper Secondary Education and Training Act 787/2014). The fundamental goal of this reform is to strengthen the learning-outcome approach of vocational qualification requirements and the modular structure of the qualifications. This supports the objective of building flexible and individual learning paths and promotes the validation of prior learning.

The scope of vocational upper secondary qualifications is 180 competence points (one year = 60 competence points). The structure of a vocational qualification is:

- Vocational studies, 135 competence points
- Core subjects, 35 competence points
- Free-elective modules, 10 competence points

The core subjects are regrouped into four larger entities: competence of communication and interaction, mathematical and scientific competences, competences needed in society and working life and social and cultural competences.

The FNAE decides on the national qualification requirement for each vocational qualification, determining the composition of studies and objectives, core contents and assessment criteria for study modules. It also includes provisions on student assessment, student counselling and on-the-job learning. The main elements undergoing reform in the qualification requirements include changing the scope of qualification (180 competence points) and revising the contents of core subjects, along with increasing the flexibility of the qualifications, which enables more individual choices for the students. In addition, validation of prior learning, learning at the work place and quality assurance, that is, assessing learning outcomes at work places in real working-life situations, are emphasised in the reformed qualifications. The reformed regulations came into force on 1 August 2015.

## The content of vocational qualification

The Finnish National Agency for Education has revised all national requirements for vocational qualifications. There are 52 upper secondary vocational qualifications, including a total of 120 different study programmes. The reform includes the structure of the requirements, the organisation of studies and the skills requirements, as well as the targets and criteria of assessment. The revised curricula stress, for example, that students should acquire skills which can be utilised in different fields and transferred from one occupation to another. Skills should serve labour market needs but also promote lifelong learning, and the study modules need to be flexible with a possibility for various combinations.

The previous and following sections highlight some of the advantages in the structure of Finnish vocational education and training. Both compulsory and optional studies are included in every vocational qualification. For example, there are two compulsory 45-competence point modules, while 45 competence points include three optional 15-competence point study modules chosen by the student. As described earlier, the student also has 10 competence points of free-elective studies.

The structure of vocational education in Finland gives the students a lot of opportunities to build up their own qualification in an individual manner. Students may freely choose free-elective studies 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. Free-elective studies can be either vocationally complementary or they may increase the number of courses in core subjects to such an extent that they may even enable the students to complete general upper secondary school and/or the matriculation examination at the same time as the vocational qualification. They may also focus on personal interests.

In order to respond to the changing requirements of the job market, the flexibility of vocational qualifications has been further increased by, for example, diversifying opportunities to include optional modules from other vocational qualifications (incl. further vocational qualifications and specialist vocational qualifications) or universities of applied sciences degrees. The goal is to add flexibility – this will allow the students to create individual learning paths and to increase the students' motivation for completing their studies. Furthermore, it is meant to give education providers an opportunity to meet the demands of the regional and local companies more effectively. All 180 competence points for upper secondary vocational qualifications include a period of on-the-job learning with a minimum scope of 35 competence points of practical training in a genuine working environment.

## Vocational education and training and co-operation with local companies

The author is working as a principal of Porvoo Vocational College, Amisto with school-based vocational education and training. Students there are mostly 16–19-year-olds. In school-based vocational education and training, studies have traditionally been organised in year classes. However, the aim of the reform is to discard this tradition and the tendency is towards providing students with advancement opportunities that are as individual as possible. This is a really revolutionary challenge that has been faced this past school year. The whole structure of vocational education has changed. We no longer talk about time or school weeks, instead we talk about skills and competences acquired. The basic information for the change can be found in the national level curricula while our own curricula are built together with companies and employers.

To manage this process we need a lot of co-operation with local companies since almost every student has an individual study path and even larger portions of the studies are carried out in companies during on-the-job learning periods. In Finland, most companies are small with less than 10 workers (93.4 per cent) and from our point of view this means lots of contracts with them. Porvoo Vocational College, Amisto has about 1 000 students. In 2014, 440 students carried out their on-the-job learning in 331 different companies. One reason for this is the size of the companies. It is not possible for the students to complete a whole module in one company. On the other hand, we are working this way in order to build up individual study paths for everyone.

In total we have more than 2 200 contracts with companies at the national and global level. This helps us to keep our vocational qualifications and study programmes in their current state. For example, during the past 10 years we have closed down three qualifications and two study programmes. The reason for this was the problem of unemployment among our graduates; there was no need for workforce in these occupations any longer. The world outside school changes all the time and we have to respond to these changes. Therefore, three new qualifications plus three study programmes have been introduced instead.

The national level curricula define the amount of on-the-job learning, the minimum scope of which is 35 competence points. The figures given in the previous sections can be used to calculate the amount of on-the-job learning at Porvoo Vocational College, which is about 12 weeks per year amounting to 54 competence points during the three years of studies. This means that our students work and learn 40 per cent of their studies at companies and this amount will keep on increasing in the future.

## The advantages of Finnish vocational education and training

Is this trend an advantage or a disadvantage? It depends on the point of view we take. We have done small-scale research where we interviewed owners and managers of companies regarding their prospective needs in regards to skills and competencies. As I mentioned earlier, most of the companies in our area are small and highly specialised. The results show that the needs differ from company to company. For us this information

is important and shows that we have to build up our local level curriculum as broadly as possible, where every student will learn basic skills and competences in school and deepen his/her skills and competences in certain knowledge areas during their on-the-job-learning periods in work placements.

For the companies the advantage is to get to know potential new workers. It is much easier for the companies to recruit workers they are already familiar with. The advantage for the teachers and the whole college is that we acquire valuable information for the education we offer, in regards to the youngsters' attitude, knowledge and skills as shown in a work place, while the teachers follow and steer the students' work during on-the-job learning. The teachers also have a chance to see if there are some shortcomings in our curriculum in regards to skills and competences the companies need.

Vocational skills demonstrations were introduced as a way of assessment in August 2006 and they mostly take place during on-the-job-learning periods. During vocational skills demonstrations the students have to show how well they have reached the skill requirements of the study module. After the vocational skills demonstration the teacher, the student and the job market representative discuss the final assessment and the grade the student will receive. Self-assessment by the student is also included in the assessment process. Working in a real-life situation inside a company is the best way to ascertain the level of the students' skills and competencies. It is a much better way to analyse learning outcomes than theoretical examinations. Vocational skills demonstrations are a big advantage we have in the Finnish vocational education and training system. All students have to pass every vocational skills demonstration successfully before they earn their certificate. Each student will receive two certificates: the student's performance in on-the-job learning and an assessment of theoretical studies assessed with the scale of grades being excellent (3), good (2) and satisfactory (1).

Typical co-operation between vocational schools and companies consists of planning the local curriculum and organising the on-the-job learning. If both sides have a common interest the co-operation can be deeper than this. One example is a marketing campaign we have done together with a Finnish oil refining company. The company has more than 4 000 employees (only 0.2 per cent of all Finnish companies are this large) and they need more than 100 new workers annually. As their retirement turn-

over is large, this need will be at the level of 100 people a year until 2030. For us the advantage was a successful recruiting process for one specific vocational qualification, where we became number one in the whole country. We got lots of students involved and the company will have new, well-educated workers in the future.

We can increase the students' skills by focusing on the methods of instruction, which are not regulated. Teachers themselves may choose the methods that they apply in order to achieve the objectives defined in the curriculum. At present, the emphasis is on student-centred working methods, the development of students' own initiative and entrepreneurship, their sense of responsibility and the importance of learning-to-learn skills. Key factors include flexible teaching arrangements, a wide range of working methods and teaching which is not tied to year classes, integration of theory and practice, as well as co-operation and interaction between institutions in the planning and implementation of instruction. In order to integrate instruction into larger modules, it is possible to use methods of joint teaching and project work, which bring together the objectives of several study modules. In addition, e-learning is a priority area in the development of new teaching methods.

In Finland it is also possible to create different combinations between school-based and apprenticeship education. The most popular model is the so-called 2+1 model. It means that the first two years are spent in school-based education and the last year in apprenticeship education in companies.

## How can TVET contribute to acquiring skills and competences at local level?

In Finland, the export industry is very important for the national economy. The confederation of Finnish Industries together with its member associations, the Chemical Industry Federation of Finland, the Finnish Forest Industries Federation and the Technology Industries of Finland, negotiated with the Ministry of Education and Culture the means for improving vocational education and training in these sectors. After the negotiations, the Finnish National Agency for Education received extra funding to start projects to create new concrete ways to help the Finnish



export industry to manage better in the future (Finnish National Agency for Education 2013).

Porvoo Vocational College, Amisto was one of the vocational organisations taking part in this work. Our focus was to work together with local companies who represent export industry in our area: East Uusimaa. Our project partners were working in the oil, metal, ventilation systems, automation and building technique sectors.

We have discussed with all our partners and we have also had one meeting together. We tried to establish the skills and competencies that workers need in each company to be able to manage better in their job in the future. We got a list of ideas concerning the important skills for the companies' workers. There were a lot of similarities mentioned earlier in the long introduction concerning Finnish Vocational Education and Training. If we think about this project from the point of view of vocational education and training we had an excellent situation. The Finnish National Agency for Education was preparing the new National Core Curriculum at the same time. This helped us since we were able to use new draft versions together with our partners and also help FNAE to make the core curriculum as good as possible for future use.

I have worked with the National Core Curriculum very intensively during the last 15 years and my experience is that we have now got the best core curriculum ever. As you can see from the previous sections, education providers are very independent and free to create their own local curricula, so long as they follow the norms. In the draft version there was more flexibility than earlier and the assessment of students gave the teachers and representatives of working life new possibilities, as norms were not so regulated any more. New flexible tools help young students to pass education and receive a certificate after it. This might look like a simple reform, but all measures that minimise the number of dropouts are extremely important in all sectors of Finnish vocational education and training.

The metal industry has been the backbone of the Finnish export industry for several decades and is still a very important part of our industry. Unfortunately, young people, students and applicants aren't so interested in the sector any more. We had a common challenge with our partner organisations in regards to getting more applicants to study programmes and fewer dropouts. As I mentioned, we can tackle this problem with the excellent new core curricula.

## *Co-operation between education provider Amisto and world of work – Case 1*

Amisto's metalwork department is working very closely with a local manufacturer of tools and spare parts for a Finnish company specialised in mining extraction. The school has rented some of the company's premises and all study functions run inside the company. This was a great opportunity for us to make individual study plans for our students, together with the company's staff members. The company is big enough to offer students different working possibilities. This helps the students to see and understand the skills and competencies needed for working with totally different equipment and in different environments.

Flexibility and personal study programmes have helped us to decrease the number of dropouts. FNAE has the statistics of dropouts in the Finnish metal sector, and we were able to be proud of our top results at a national level. The students passed the qualification and the company had skilful workers for summer jobs and during on-the-job-training periods. The students specialised in the jobs in which the company needs permanent work force. This was a win-win situation for everyone.

Finnish oil refinery company Neste Oyj, the largest industrial concentration of the Nordic countries, is situated in Amisto's area and has many refunding units there. The company needs new workers every year and we try to help them to solve this problem together.

## *Co-operation between education provider Amisto and world of work – Case 2*

Amisto has worked together with Neste Oyj for at least 40 years. The results we have are quite good regardless of Neste's very strict criteria for accepting students. For example, if the student is under 18 years old s/he is not allowed to work or even enter the process area of the company. This makes on-the-job-learning impossible before turning 18. Another challenge we have is meeting the level of the qualification, which requires high basic knowledge. Our applicants often come straight from comprehensive school and we have a common interest with Neste Oyj to have good applicants to apply to our school for this specific qualification. Neste Oyj has been very active and they have taken part in every marketing event we have had. The members of Neste Oyj have given information about the company, working possibilities, salaries etc. Our marketing people, in turn, have given

general information about studies in our school. Working together both sides win. Amisto receives motivated students and the company gets skilful and competent future workers. After working actively together the results were top class. Amisto received more applicants to the qualification in process technology than any other vocational school in the whole country.

## Export industry project

We have commenced the project together with the companies and the plan was to continue these meetings four to five times. The main idea was to discover the skills and competencies needed in working life up to the 2060s. It wasn't an easy job to decipher these and, after finding them, to turn them into practice. We have a lot of knowledge and experience on both sides. No-one can solve these on their own, they are our mutual challenge that can be resolved by working together with open eyes and minds. A common interest made this work interesting and we had a couple of extra partners from universities who have a lot of different knowledge to help us in our case. Almost every company that worked with us in this project is international and they can use the experience they have got abroad working in the field of vocational education and training. We have also lots of international partners who helped us in this project.

## Conclusion

What will work look like in the future? This subject has been discussed a lot in recent years. What are the occupations that will remain and which will disappear? The discussion on the matter has been very visible in Finland for some years already, with certain professions and occupations more at risk than others. The subject matter has been studied in Finland by the Finnish Parliament's Committee for the Future that ordered a study about future technologies.

In addition to these, a lot of related research has been done about the matter on a global level. How deep into these research ideas do we want to dive? I have read the results and had some brainstorming sessions around the ideas. New technology evidently needs new thinking and new competences. An advertisement where we can see the words "New thinking, new possibilities", is true. If we compare those words with the context where

we are working, we can ask ourselves what is really important. We have to look at these things from three different directions: students, teachers and companies. I believe everyone has their own interests and dreams and our job is to try to find a way to put them together or at least as close to each other as possible.

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# Integrative learning in education and expertise

*Annica Isacsson*

## Introduction

■ This article delves into the rationale of integrative learning as an approach for combining theory with practice in higher and upper secondary vocational education. Furthermore, it discusses the pedagogical approaches, pre-requisites, practices, questions and implications that integrative learning and thinking pose.

Integrative learning as a model is one way to meet the rapidly changing demands of new competences that the world of work and school require. It also presents itself viable for co-development, i.e. for learning and development together with the world of work. The integrative learning practices require near transfer between theory and practice, and the acknowledgement of prior learning in new situations. Successful integration of theory and practice, school and work, requires pedagogical solutions on both horizontal and vertical levels, often involving curriculum design, and students taking ownership of their own learning processes in order for their learning to be both holistic and relevant.

This article begins by discussing aims and questions related to integrative learning in vocational education and training (VET) and higher professional education. A few successful integrative pedagogical methods and cases are presented. The article continues by discussing and presenting the prerequisites for integrative learning, through an integrative learning model, and finishes by presenting the idea of phenomenon-based learning that is being applied currently as a pedagogical integrative model in Finland in both basic education and VET.

## Pedagogical aims and questions in integrative learning approaches

Transfer of knowledge and skills between school and practice and visa versa is one central aim of VET. Consequently, a continuous research topic in VET is how to transfer experience, knowledge and skills between practice and theory, school and work.

According to research, e.g. Aarkroog (2011), it can be accomplished through practice-based learning and teaching and by creating means of near transfer and identical elements between the learning and the transfer contexts. Practice-based learning is important as VET students often experience vocational school and trade practices as very dissimilar contexts with different norms and guidelines for action (Tanggaard 2007). Moreover, because according to e.g. Aarkrog (2011) students are not interested in focusing on specific subjects or theories, rather on developing their competences and experiences useful in job contexts.

Both vertical and horizontal learning, however, are needed in practice-based teaching and integrative learning. In vertical learning the construction of knowledge is built on prior experiences, whereas in horizontal learning the focus is on learning across multiple systems, and the view on knowledge and expertise is much broader, and multidimensional (Engeström et al 1995; Tuomi-Gröhn et al 2003).

While VET is pre-occupied with practice-based teaching and learning, and questions related to transfer and identical elements between school (theory) and work (practice), professional higher education (HE) institutes, such as polytechnics and universities of applied sciences, have developed pedagogical approaches and integrative learning strategies with the aim of developing the world of work. Those methodologies involve project/case-, and problem-based learning (PBL), in addition to inquiry-based pedagogies and approaches. Professional HE-teaching and learning has become both more authentic, and development-, research-, and competence-based through integrative methods. This has occurred over a period of time when both higher professional and Finnish VET educational institutions have adopted competence-based curriculums, and intensified collaboration with the world of work.

PBL- and project-based pedagogy are the oldest approaches, and differ in that the latter allows participants to utilise a wider array of methodological choices and the teacher's focus being more on the outcome, where-

as the problem-based learning tends to put somewhat more teacher focus on process per se. Other differences may be that project learning (or case-based learning) often are somewhat more authentic than problem-based learning. Students work in small groups on concrete problems or cases which often are authentic commissions from enterprises or public organisations.

PBL as an educational philosophy requires a holistic approach considering the organisational context, curriculum content and design, and teaching and learning approaches, including methods of assessment and evaluation. From an educational point of view, project-based studies are not the easy option despite their wide acceptance as a method. The challenges include risks both to learning and the learning experience of the students, as well as to the effects on the relationships with the project assignor company in case the planned results are not achieved.

In the following I will, by two authentic examples from the universities of applied sciences, demonstrate the pros and cons of applying integrative learning in project- and inquiry-based approaches.

### *Example 1: Integrating students in a research-based project learning*

The project took place at Laurea University of Applied Sciences (UAS) in 2009 and the author of this article was responsible for the project. The project involved students, working life representatives (airport architect and administrators), in addition to lecturers and students from different disciplines. It involved elements of multisensory tourism marketing and the activation of several senses with the aim to arouse interest in Finland. The idea of the project was to communicate Finland as a tourism destination at Helsinki Airport for Asian tourists in a slightly different way. The project outcome was a six-square-metre-large multisensory space and system in which six videos, a lighting system, scents, colours and a wind-machine were integrated together. The responsible ICT-teacher and his research assistant worked on the software and the integration of technology. Students in his class took the roles of co-developers in relation to user interface design and customer experiences. The tourism students involved gave feedback on scents and videos during the design process, and made interviews on usability and consumer experiences at the airport after the project launch. Students hence learned about research methods, innovation and co-design processes while being interconnected to the project.

The project received media attention and resulted in articles and a thesis (Isacsson 2011). The focus of the project was on the outcome, and on consumer and airport experiences. The students involved were engaged and motivated, and the project team awarded. The project itself was interesting, but extremely demanding. Some of the ICT-students felt that the project was beyond their course description whereas, for example, a tourism student stated that “the project has added to my knowledge and has provided me a new dimension to understand the possibility and future of creating a unique environment”.

The Laurea UAS pedagogical strategy Learning by Developing (LbD) revolves around co-development in authentic environments in intensive collaboration between the school and the world of work. The learning and co-development processes take place through partnership, experience, authenticity, research orientation and creativity. The focus is on individual and community learning and the joint creation of innovation and know-how. The LbD model was executed and perceived successful thanks to devoted and engaged staff and students. The project was large and involved many challenges, as well as risks.

### *Example 2: Engaging students in research project and inquiry-based learning*

16 students in the Finnish-Swedish bilingual programme Sales and Visual Marketing at Haaga-Helia University of Applied Sciences Porvoo Campus were involved in a research project in 2014. Their task was to analyse the Swedish jam and berry market for the benefit of a Finnish company with the intention of launching jams and berry juices on the Swedish market. They searched for research collaboration with a Swedish university, and analysed the market from the points of view of transport, competition and pricing. The author of this article was the Project Manager of the research project (Isacsson 2013). In collaboration with a Swedish university, the students executed desk-research, analysed statistics and reports on jam and berry-juices in Sweden. The students and lecturers also visited a food fair and the Chamber of Commerce in Sweden, and made a pop up inquiry of consumer experiences at Sergel's Torg in Stockholm.

At Haaga-Helia Porvoo Campus, the inquiry learning pedagogy and concept has been incrementally shaped in an effort to make sure that school and the outside world are integrated. In the campus' process students take responsibility of the projects; they take different roles and re-



sponsibility for their own learning. The teachers act as facilitators, and planners of the pedagogical processes, interconnecting practice and learning with theory through inquiry. The philosophy involves the idea that humans do not necessarily learn from experience, or from general reflection, particularly if they do not think critically about their own experiences and learning. Inquiry-based learners are part of learning and experimental processes through individual and shared inquiry- or task-oriented development-based reflection and analysis. The student feedback in this project was overwhelming. The strong involvement of teachers, students and the industrial partner was crucial in this case.

In table 1, we can see some of the most typical integrative pedagogical approaches and questions in VET and higher professional institutions, such as polytechnics and universities of applied sciences.

| PEDAGOGICAL AIMS AND QUESTIONS IN INTEGRATIVE LEARNING APPROACHES |   |
|---|---|
| Practice-based learning   | How to transfer experience between practice and theory/work and school through identical elements, and horizontal/vertical learning.                |
| Problem-based learning  | How to engage students in relevant problems and learning, through curriculum design, assessment and teaching processes.                             |
| Project-based learning  | How to engage students in authentic and concrete industrial/ research projects by various methods. Outcome-based.                                   |
| Learning by developing  | How to create authentic environments for co-developing and joint learning with the world of work?   |
| Inquiry-based learning  | How to make students take ownership of their learning, inquiry processes and assessment through development-based reflection and critical analysis? |

Table 1. Overview of integrative learning methods.

In the following some theoretical considerations related to integrative learning are described.

## Pedagogical pre-requisites for integrative learning and professional expertise

According to Tynjälä and Kallio (2009) integrative learning requires a combination of knowledge. Integrative thinkers combine different competences in their thinking. Integrative thinkers allow contradictory and

parallel explanations in sciences, as well as different methodological approaches, the integration of several viewpoints, and the ability to be open for experimental and innovative pedagogy.

Hence, (1) the development of vocational and professional expertise must be seen as a holistic process in which theory cannot be separated from practice – or practice cannot be separated from theory. (2) When students are solving real life problems either in authentic working life or in simulated contexts, they need to be provided with conceptual and pedagogical tools which make it possible for them to integrate theoretical knowledge with their practical experiences. (3) Participating in real life situations is a necessity, but not a sufficient condition for the development of high-level expertise. Only deep integration of theoretical, practical and self-regulative knowledge creates expertise according to Päivi Tynjälä (2006).

Theoretical knowledge and practical knowledge represent intrinsically very different types of knowledge. Theoretical knowledge is universal, formal and explicit in nature. Practical knowledge that we gain through practical experiences is case-specific, and not universal the way theoretical knowledge is. Practical knowledge (often referred to as procedural knowledge or simply as skills) is often not so easy to explicate; rather it is intuitive, implicit or tacit in nature. Self-regulation, on the other hand, is the ability to monitor and control our own behaviour, emotions or thoughts, altering them in accordance with the demands of the situation. It includes the abilities to inhibit first responses, to resist interference from irrelevant stimulation, and to persist with relevant tasks even when we don't enjoy them.

Integrative learning, however, is not a specific method of teaching; instead it is a principle which states that theory, practice and self-regulation should be integrated in learning. Incorporating integrative learning in education requires the development of pedagogical models that take into account both the situated nature of learning and the generic knowledge in the development of expertise. Pedagogical tools could, according to Tynjälä (2006), involve reflective learning diaries or blogs, analytical assignments, portfolio work, mentoring and tutoring processes, in addition to e.g. peer-work, and action-based practices increasing the level of connectivity between generic and situational.

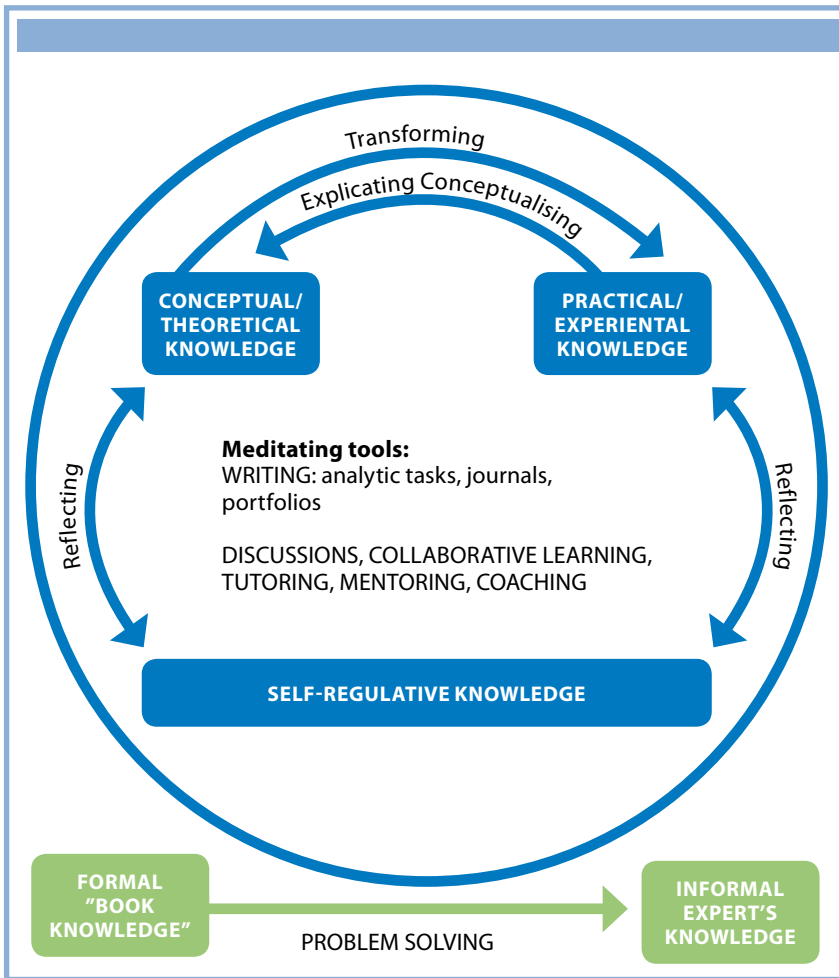


Figure 1. Integrative Learning Model (Tynjälä 2006).

Hence, integrative learning in VET and higher professional education requires both theory, practice and self-regulation, in addition to horizontal and vertical learning, and transfer processes between school and work contexts. Furthermore, it requires pedagogical tools and methods. This article will conclude by presenting the holistic idea of phenomenon-based learning (PhenoBL) as an integrative approach, currently very popular and applied both in VET and comprehensive education in Finland.

## Phenomenon-based learning

In PhenoBL and teaching, holistic real-world phenomena provide the starting point for learning. The phenomena are studied as complete entities, in their real context, and the information and skills related to them are studied by crossing the boundaries between subjects. Theories are anchored in practice and phenomena. Learning is thus an intentional, goal-oriented activity in which the learners are active actors and producers. The PhenoBL approach is integrative and authentic by nature, and the aim is to bring genuine phenomena from e.g. working life into learning situations in a pedagogically structured way.

The starting point in PhenoBL differs from the traditional school culture divided into subjects, where the things studied are often split into relatively small, separate parts (decontextualisation). Phenomenon-based structure actively strives at creating better opportunities for integrating different subjects and themes, as well as the systematic use of pedagogically meaningful methods, such as problem-learning, project-based learning and portfolios.

The starting point of phenomenon-based teaching is constructivism, in which learners are seen as active knowledge builders and information is seen as being constructed as a result of problem-solving, constructed out of ‘little pieces’ into a whole that suits the situation in which it is used at the time. When PhenoBL occurs in a collaborative setting (the learners work in teams, for example), it supports the socio-constructivist and sociocultural learning theories, in which information is not only seen as an internal element of an individual; instead, information is seen as being formed in a social context.

The phenomenon-based approach suits the changes that the Finnish school system is striving for, e.g. in strengthening the competence-based approach and outcomes in VET, and shifting from teaching subjects to teaching and learning general skills. The phenomenon-based approach at its best supports the competence-based approach. The approach, however, also has its risks; lack of clear instructions, as well as too much freedom make PhenoBL challenging. Furthermore, recent research has found that generic skills are highly context-dependent and manifested in different ways in different contexts. Secondly, research findings demonstrate that skills such as critical thinking, analysis, problem-solving and communi-

cation are conceptualised and taught in quite different ways in different disciplines by different teachers.

The PhenoBL approach, however, is integrative, holistic and authentic by nature, as the aim is to bring genuine phenomena from e.g. working life into learning situations in a pedagogically structured way. It can be accomplished through inquiry-, project-, problem-, and practice-based pedagogical approaches, combining ideas of transfer, and vertical and horizontal learning, with knowledge, practice and self-regulation. (Silander 2015.)

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# Apprenticeship education

*Keijo Honkonen*

## Abstract

■ This article aims to provide the reader with a holistic picture of apprentice education in Finland by outlining its history, current situation and future. The concept of apprenticeship education will be described mostly from a European study perspective. Apprenticeship education in practice will be discussed from all parties' point of view. On-the-job learning is an essential success factor of apprenticeship education and therefore this article enlightens various applications of it. The article concludes with lessons learned and the future outlook for apprenticeship education.

## Rationale of this article

The European Commission acknowledge that significant numbers of young people face challenges in the transition from education to the working world. Challenges such as skill mismatches between labour demand and supply often hinder the chances of them finding adequate employment, especially when this is due to a lack of appropriate competences. In particular, “the lack of work experience constitutes a serious obstacle to young people’s ability to enter the labour market” (European Commission 2012, 20).

According to European Commission studies the recent economic crisis hit young people particularly hard, with this segment of society facing increasing difficulties in gaining a foothold in the labour market. Alleviating this situation, there is a broad consensus today among policy-makers, social partners and experts that apprenticeships can be an efficient solution to some of the present labour market imbalances and benefit both learners and employers. By combining study and work, apprenticeships and on-the-job learning can offer them an opportunity to acquire work experience while enhancing skills in close alignment with employer requirements. Because of their inherent relevance for the labour market, apprenticeships

and on-the-job learning can help to reduce skills mismatch and ease transition from education to work (European Commission 2012).

## Concept of apprenticeship education

Cedefop, the European Centre for the Development of Vocational Education, defines apprenticeship as: “Systematic, long-term education alternating periods at the workplace and in an educational institution or education centre. The apprentice is contractually linked to the employer and receives remuneration (wage or allowance). The employer assumes responsibility for providing the trainee with education leading to a specific occupation” (Cedefop 2009).

Thus, this definition establishes the existence of a contractual relationship between the employer and the student (linked to remuneration) as a “sine-qua-non” requirement for defining an apprenticeship-specific scheme. Nonetheless, recent work by Eurostat discusses a different operational definition (Eurostat 2010).

European Commission emphasize that the apprenticeship must be a component of a formal education programme and therefore it must qualify for employment in a specific occupation or group of occupations. It also must be based on formal agreement with the remuneration within the participants (wage or allowance) and minimum of six months duration.

These definitions can be considered more open than the one by Cedefop, in the sense that the requirement of a contract between the company and the apprentice is less strict and can be substituted by a “formal agreement” via the education centre to which the student belongs. On the other hand, the existence of a remuneration or allowance is kept, while a temporal requisite is introduced (at least six months), though this is still subject to discussion. Considering the absence of a single and clear-cut definition of apprenticeship, and given the aforementioned diversity of vocational education systems across Europe, apprenticeship-type schemes will thus be defined as those forms of Initial Vocational Education and Education (IVET) that formally combine and alternate company-based education (periods of practical work experience at a workplace) with school-based education (periods of theoretical/practical education followed in a school or education centre), and whose successful completion leads to well and nationally recognised initial VET certification degrees (European Commission 2012, 22).



## Apprenticeship education in Europe

Across the whole EU-27, approximately 3.7 million pupils are undertaking apprenticeship studies in a strict sense (2009 data). However, another 5.7 million students have embarked on other apprenticeship-type schemes, mainly school-based VET education with some compulsory work-based education in companies. All in all, European enterprises have supplied company education positions to around 9.4 million students in total. Apprenticeship-type students represent approximately 85 per cent of the total secondary VET students and 40.5 per cent of total secondary students in the EU-27. These figures dip to 33 per cent and 16 per cent respectively if only strict apprenticeships are considered. The countries with the highest numbers of VET students following apprenticeship-type schemes are also the largest, e.g. Germany, Italy or France (European Commission 2012, 22).

## Apprenticeship education in Finland

The first apprenticeship law in Finland was introduced in 1923, with all such education commencing in artisan fields. In those days there were high expectations that vocational education could benefit the industrial sector, which was lacking a decent basic vocational education. Profound support for apprenticeship education was given by labour organisations (employer and employee). They organised agreement policy and set the standards of salary for education.

In 1967, the apprenticeship law was updated to cover the whole country. At the same time vocational curriculums were set and written and theoretical education was connected as a part of apprenticeship education. Towards the end of the 1990s a vocational education law was introduced, which set the policy and framework of apprenticeship education. At the beginning of 2018, a new law is being introduced concerning vocational education (both young and adult students). This law covers the apprenticeship education agreement based on on-the-job learning.

Interestingly, vocational qualifications may also be completed as apprenticeship education. Apprenticeship education is available to both adults and young people, but in Finland the majority of apprentices are employed adults (European Commission 2012, 43). One reason for this could be that there are many employees who want to increase their voca-

tional skills, and apprenticeship education with a decent income provides a good opportunity for this.

Apart from vocational qualification certificates, apprenticeship education allows achieving a further vocational qualification or a specialist qualification. The apprenticeship education is based on a written working contract of fixed duration between the apprentice and the employer, and the practical education periods take place at the workplace in connection with ordinary work assignments (approximately 70–80 per cent of the time is spent in the education workplace, complemented by theoretical studies arranged at institutions providing vocational education and education). Finally, IVET at Tertiary Level is offered at polytechnics (*ammattikorkeakoulu*), where degrees provide the knowledge and skills for professional expert functions and with a professional emphasis (European Commission 2012, 42).

Apprenticeship education complies with the national core curricula and qualification requirements set out by the Finnish National Agency for Education. The number of qualification requirements currently stands at 374. In other words, qualification requirements set the goal skills for 374 different study programmes. In principle, it is possible to complete all these qualifications in the form of apprenticeship education. Apprenticeship education is based on a fixed-term employment contract between an employer and an apprentice, who must be at least 15 years old. The employment contract covers vocational studies at the workplace. Apprenticeships include an individual study programme, drawn up on the basis of the qualification requirements set out by the Finnish National Agency for Education (Koukku & Kyrö 2014).

Apprenticeship education can account for the attainment of vocational upper secondary qualifications, and further and specialist vocational qualifications. In Finland, students may obtain vocational upper secondary qualifications either in the form of curriculum-based or competence-based qualifications. Further and specialist vocational qualifications can be attained only as competence-based qualifications (Koukku & Kyrö 2014, 2).

In order to complete a competence-based qualification, candidates must demonstrate certain skills and competence required of the profession. These skills are outlined in the Requirements of Competence-based Qualifications defined by the Finnish National Agency for Education. Vocational modules are defined in collaboration with representatives of busi-

ness life and are directly based on real-life work tasks (Finnish National Agency for Education, website).

Nearly half the apprentices participate in the preparatory education for competence-based qualifications (table 1 and 2). The aim of preparatory education is to provide students with vocational skills in order to pass competence tests. Preparatory education is organised by education providers authorised by the Ministry of Education and Culture, and education is funded mainly by the Ministry of Education and Culture. Approximately 70–80 per cent of apprenticeship education takes place at the workplace, where the student’s workplace trainer will be responsible for his or her instruction. Education at the workplace is supplemented by theoretical studies, largely taking place in vocational educational institutions and vocational adult education centres (Koukku & Kyrö 2014, 2).

| TYPE OF VOCATIONAL EDUCATION   | EDUCATIONAL INSTITUTION-BASED EDUCATION | EDUCATIONAL INSTITUTION-BASED EDUCATION, WOMEN (%) | APPRENTICESHIP EDUCATION | APPRENTICESHIP EDUCATION, WOMEN (%) | TOTAL   | TOTAL, WOMEN (%) |
|--|---|--|--------------------------|-------------------------------------|---------|------------------|
| <b>Curriculum-based basic vocational education</b>                     | 132 554                                 | 47   | 399                      | 44                                  | 132 953 | 47               |
| <b>Preparatory initial vocational education for a competence test</b>  | 44 565                                  | 58   | 19 407                   | 54                                  | 63 972  | 57               |
| <b>Preparatory education for further vocational qualifications</b>     | 36 558                                  | 53   | 18 787                   | 52                                  | 55 345  | 53               |
| <b>Preparatory education for a specialist vocational qualification</b> | 7 240                                   | 48   | 16 961                   | 53                                  | 24 201  | 52               |
| <b>Total</b>   | 220 917                                 | 50   | 55 554                   | 53                                  | 276 471 | 51               |

Table 1. Students in vocational education by form of education in 2012 (Education, Statistics Finland, 2014).

|  | NEW ENT-RANTS, TOTAL | STUDENTS, TOTAL | GRADUATES, TOTAL |
|--|----------------------|-----------------|------------------|
| Vocational qualifications, total                 | 20 911               | 55 554          | 13 039           |
| Vocational upper secondary qualifications, total | 7 672                | 19 806          | 4 090            |
| Further vocational qualifications                | 6 842                | 18 787          | 5 021            |
| Specialist vocational qualifications             | 6 397                | 16 961          | 3 928            |

Table 2. New apprenticeship education entrants, students and graduates in 2012 (Education, Statistics Finland, 2014).

During the time they are educated at the workplace, students are entitled to remuneration that complies with the collective agreement. For the period of theoretical studies, students may be eligible for social benefits, such as a daily allowance and allowances for accommodation and travel expenses. Student benefits cannot be claimed if the student receives salary or other benefits during the period of theoretical studies. Apprenticeship education leading to a vocational qualification can be completed over one to three years. Previous education and work experience may contribute towards shortening the period of education (Koukku & Kyrö 2014, 3).

## Apprenticeship education in practice

The student and the employer sign an apprenticeship contract, which sets out the contract period, trial period, the qualification pursued and the basis of the student's pay (in compliance with the relevant collective agreement). In addition to these, the contract will specify key tasks, theoretical studies included in the education, the education provider arranging the theoretical studies, timing of the theoretical studies during the period of education, the workplace trainers responsible for the student, and the education compensation paid to the employer (Koukku & Kyrö 2014, 3).

The apprenticeship contract must be approved by the education provider, which can be the apprenticeship office or the educational institution organising the apprenticeship education. Apprenticeships must comply with the relevant collective agreements. Students must be reserved the opportunity to obtain a competence-based qualification, as stipulated in the Vocational Adult Education Act. Preparatory education included in the apprenticeship and examinations is provided free of charge for the students and employers. The local organiser of apprenticeship education re-

ceives government funding for the education provision (Koukku & Kyrö 2014, 3).

## Organising on-the-job learning in apprenticeship education

Education and skills of workplace instructors vary from one workplace to the next. Businesses that regularly recruit apprentices usually have efficient structures and arrangements in place. However, at some workplaces, the education, commitment and even motivation of workplace instructors are insufficient to provide apprentices, or the students engaging in their work-based learning, with enough high-quality instruction. Small and medium enterprises (SMEs) rarely have sufficient staff to appoint workplace instructors and may therefore find it difficult to take on apprentices or students for short periods of work-based learning (Koukku & Kyrö 2014, 16).

The key issue is how to create practical and good co-operation between the workplace, student and education provider. Cooperation between vocational education and working life will be strengthened in order to improve apprenticeship training, on the basis of a recommendation issued by the state, municipalities, central labour market organisations and other organisations. The recommendation decrees that learning in a genuine work environment at the workplace, by performing real work tasks, is a key element in acquiring, ensuring and developing vocational skills. The related goals include developing educational institutions' contacts with the working world, promoting the participation of employers in the planning and assessment of learning and skills demonstration at the workplace, improving the opportunities of small enterprises to implement learning at the workplace, and improving the quality of instruction provided at the workplace and education for workplace instructors (Lammi 2010, 8).

Education providers are responsible for ensuring that the education is personally tailored to each participant, depending on whether they primarily instruct and assess students within vocational upper secondary education and education, preparatory education for competence-based qualifications or apprenticeship education. The education provider decides how the special features of these various forms of workplace education, for example with respect to assessment, are taken into account in the planning of workplace instructor education. The majority of workplace instructors

work with students within all of the above-mentioned forms of education. Experience indicates that the participation of workplace instructors in the education varies by sector. In some sectors or workplaces, it is difficult to get workplace instructors to participate in the education, while some sectors have plenty of participants on a continuous basis. In such cases, education providers can focus more attention and support on certain types of sector-specific education or the education of personnel in certain types of workplaces, for example small companies (Lammi 2010, 12).

## Lessons learned in apprenticeship education

The essential strength of apprenticeship education is the possibility to empower and achieve resources of different learning environments (Niinisalo 2013, 23).

The main lessons learnt from the ample European experience with apprenticeship-type schemes, have resulted in a number of recommendations for further policy action (European commission, 2012, 123–131):

- Need for improvement of the general image of VET, especially in some EU Member States. Finland is not exempt from this.
- Need to increase the importance and use of the workplace education dimension.
- Ensure a correct balance in the provision of occupational general skills and competences.
- Adaptation of VET contents and systems to enterprises' needs.
- Ensure homogeneous quality standards of apprenticeship-type VET studies, especially the work-based education dimension.
- Promotion of horizontal and/or vertical links between apprenticeship-type VET studies. Ensure lifelong learning possibilities of apprenticeship-type VET studies.
- Assure a sufficient provision of apprenticeship-type places, especially in the current context of economic crisis.
- Facilitate access of students to apprenticeship-type VET studies.
- Continuous education activities of VET school teachers and company trainers.
- Internationalisation of apprenticeship-type VET studies.
- Take into account social-related considerations.
- Reinforce early career guidance and counselling activities.

- Foster cooperation of different stakeholders in the design/management of apprenticeship-type schemes.
- Facilitate exchange of information and good practices amongst EU Member States.

## The future of apprenticeship education

In Finland, VET has grown more popular in the 2000s, and undoubtedly the increased share of on-the-job learning has played a part in this. However, traditional apprenticeship education continues to make up a marginal share of the education provision for young people. Apprenticeship education is largely used in re-education, continuing education and further education for adults.

For this reason, the Ministry of Education and Culture initiated a development programme for 2014–2016, whose objective is to increase the provision of apprenticeship education for young people, and to develop models that combine institution-based and apprenticeship-based education. The development programme belongs to the Youth Guarantee programme. The aim of the programme is to get young people to work or vocational education. This programme was launched in early 2013 and targets young people under 25 years of age who lack a post-basic education qualification (Koukku & Kyrö 2014, 11).

In the short term, the key question for traditional apprenticeship education is how to attract more young people. In the national education policy, apprenticeship education is seen as one of the methods that can reduce exclusion and non-completion of education. The opportunities and prerequisites of SMEs for taking on students for periods of work-based learning and apprenticeships should also be improved. SMEs often find it difficult to recruit apprentices or short-term on-the-job learners because they rarely have enough staff to provide sufficient workplace instruction (Koukku & Kyrö 2014, 17).

Currently, apprenticeship education will be governed and administrated by the Law of Vocational Education (630/1988) and vocational qualifications will be governed and administrated by the Law of Adult Vocational Education (631/1998) until the end of 2017. At the beginning of 2018, when the new Law of Vocational Education is implemented, there will be no specific apprenticeship budget for education providers. Instead,

all vocational education providers will receive a summary budget to utilise according to personal study plans and target groups.

Apprenticeship education will then be considered more as a pedagogical method and agreement for those who study mostly via on-the-job learning. An Apprenticeship Education Agreement will be signed between the respective education provider, student and employer. The content of the agreement covers tasks of agreement partners, student counselling and tutoring arrangements and employer fee. Those who study, but do not have a working relationship, will sign an Education Agreement between the education provider, student and representative of an on-the-job learning place while on-the-job learning.

## Conclusions

At the moment, the employers find the complexity of legislation will prevent them from utilising the system optimally. Combining different laws into one law will benefit apprenticeship education as the main feature of on-the-job learning.

Mr Petri Lempinen, the CEO of the Finnish Association for the Development of Vocational Education and Training AMKE, believes that there will be more young people in the future who require better possibilities to combine school premise learning and on-the-job learning, for example two years at school and one year of apprentice education. Lempinen also states that the present administration and financing system prevents this flexible procedure of apprenticeship education. In terms of adult students, apprenticeship education works well. AMKE believes that in the future apprenticeship education is part of students' personal study plan and path towards employing him or herself into open labour markets (Lempinen, AMKE, 2016).

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Relevant legislation:

Vocational Education and Education Act, 630/1998

Vocational Adult Education Act, 631/1998

Vocational Education and Education Decree, 811/1998

# Teachers in vocational education and training



*Jari Laukia*

## Introduction

“The work of a teacher aims at the future. A teacher is guiding students to become real professionals, not only when it is a question of practical skills but also when it is a question of social and societal skills.”

*(Rauhala, P. 1955).*

■ The concept of a teacher is universally understood to mean a classroom teacher. A person taking care of the learning of practical skills, or working in vocational education institutions or vocational schools has traditionally been given different job titles: trainer, supervisor, tutor, professional and teacher, depending on the country, institution and situation. The citation above by Pekka Rauhala also defines the dichotomy of teachers working in the vocational education field.

In Finland, there are teachers also in vocational education. There are nationwide qualification requirements for teachers in vocational education (Statute teacher qualifications 986 / 14.12.1998). Also, there are qualification requirements for teachers working in universities of applied sciences. The position of teaching, in general, is respected in Finland, but also teaching in vocational education is seen as being attractive. The situation, however, has not always been this way. In this article, the focus is on the development and contents of vocational teacher education in Finland. How was vocational teacher education developed in Finland? Why has it been developed? How is teacher education implemented and organised today and what are the future visions of vocational teacher education?

## Teacher education in different vocational education sectors

A statute of basic education from 1866 moved the responsibility of education from the church to municipalities. Classroom teacher education commenced in 1863 at a Jyväskylä seminar. The duration of education was two to three years. Since 1971, basic education teachers have been educated in scientific universities and teacher education has become master's-level education (Sahlberg 2015, 107–109; Laukia 2013a, 48).

In the vocational education sector, it is more difficult to ascertain exactly when teacher education commenced. In different vocational education sectors, teacher education developed at different times and education systems varied depending on the education sector. For example, teacher education for agriculture education became more systematic in 1920, gardening sector teacher education started in 1911, nurse teacher education commenced in 1924 and forestry teacher education in the 1930s.

In the early guild system of the 18th and early 19th centuries, masters taking care of education did not have any teaching or pedagogical education. Also, in early technical and vocational education, vocational schools and technical institutions, persons responsible for teaching and education normally didn't have teacher education. They were called such things as workshop masters, experts, lecturers and sometimes teachers. Very soon after the modern school-type of vocational education institutions were developed, the question of teacher pedagogical education was raised. It was a question of the quality of learning, the motivation of students and the appreciation of the teaching profession in vocational education. Vocational education was educating not only skilled workers and entrepreneurs, but additionally well-behaved, active citizens for a liberal society (Olkinuora 2000, 186; Laukia 2013b, 30).

Voluntary pedagogical courses for vocational school teachers, who were educating workers for industry and technical professions, were organised from 1913. These courses were organised by the inspector of vocational education of the Ministry of Trade and Commerce, Mr. Jalmari Kekkonen. The three-month courses were voluntary and participants were attracted to take part in the education by the promise of a higher salary.

In spite of the recognised importance of teacher pedagogical education, the systematic pedagogical education for vocational subject teachers was not implemented until the end of the 1950s. Those who opposed vocation-

al teacher education explained that the number of students in the vocational education sector was relatively small compared to general education and that the education would cause additional expenses for the Government of Finland. One explanation also was that compulsory pedagogical education for technical subject teachers would lower the attractiveness of the teacher position. Why should a technically educated, industry-respected person still have to undertake pedagogical studies to become a teacher?

## Systematic education for VET teachers

The number of students in vocational education increased rapidly at the end of the 1950s and in the beginning of the 1960s. The question of teacher education became even more important than before. It was a question of the quality of education and the attractiveness of vocational education and training. Also, it was a question of the appreciation of the teacher's position in vocational education. In basic education, folk school and high school, teachers were required to have teacher education. Why not in vocational education?

In 1957, the Parliament of Finland introduced a degree for vocational teacher education. In accordance with this law, vocational teacher education commenced in the cities of Hämeenlinna and Jyväskylä. Even earlier, in 1950, Helsinki Business College had begun to educate teachers for the business sector (Laukia 2013b, 32).

When planning the teacher education system for VET subject teachers there were two alternatives. One was to prepare a special, two to three-year vocational teacher degree programme, which could include technical substance studies and pedagogical studies. Another alternative was to prepare a pedagogical education programme for professionals who already had technical education and practical work experience (Laukia 2013a, 214–216). This alternative was selected, as it was the most economical of the two. This system also made it possible to educate teachers quicker than a degree programme lasting several years. With the amount of vocational education students increasing rapidly in the 1960s, there was an increased need to educate vocational teachers. Also in the 1950s and 1960s, Finland was recovering from World War II and the government did not have much in the way of financial resources for teacher education.

Pedagogical education thus became compulsory for vocational subject teachers. The statute of vocational education from 1959 declared nation-

wide qualification requirements for vocational education teachers. According to the statute, teachers should have technical or other practical college-level degree education, a minimum of two years' practical work experience and pedagogical education. If a teacher wanted to have a permanent teacher position and full salary, s/he should fulfil all of these qualification requirements. These vocational teacher qualification requirements and the teacher education system created in the 1950s, with some changes, are still in effect in Finland.

In the 1960s and 1970s, teacher education was organised by several small institutions and the curriculum varied depending on the vocational education sector. In the 1980s, when the administrative system of education had unified and upper secondary education had been renewed and modernised, new regulations for vocational teacher education were also implemented. In 1985, vocational teacher education received unified curriculums for the whole vocational education sector. Pedagogical education also became compulsory for all teachers working in vocational or practical education sectors and institutions. After this reform, teacher education became compulsory for all teachers working in different kinds and different levels of vocational schools, adult education institutions and vocational and technical college level institutions (Olkinuora 2000, 196–197; Laukia 2013b, 33).

Universities of applied sciences were developed in Finland in the 1990s on the basis of higher technical and practical education at college institutions. Vocational teacher education underwent a reorganisation at the same time. The Parliament of Finland decided to establish five schools of vocational teacher education, which worked in connection with universities of applied sciences. At the moment, there are five universities of applied sciences containing a vocational teacher unit. These are Haaga-Helia University of Applied Sciences in Helsinki, HAMK University of Applied Sciences in Hämeenlinna, Tampere University of Applied Sciences, Jyväskylä University of Applied Sciences and Oulu University of Applied Sciences. Swedish-speaking vocational teacher education was ordered at the responsibility of Åbo Akademi university in Turku (Laukia 2013b, 33).

## Vocational teacher education today

Currently, there are nationwide qualification requirements for vocational education teachers in Finland. Qualification requirements are defined in

the statutes of universities of applied sciences (1129 / 18.12.2014) and the statute regarding teacher qualifications (986 / 14.12.1998). A vocational subject teacher must have a minimum of bachelor-level degree education or equivalent, three years' experience in the world of work and pedagogical teacher education (60 ects, one academic year). In special cases, also a vocational degree or special vocational degree are accepted (Vet in Europe 2014, 23; Laukia 2013b, 34–35). Core subject teachers, such as teachers for communication and interaction competences, social and cultural competences, or mathematical and natural science competences, must have a master's degree and teacher education. At university of applied sciences, a teacher must have a master's degree and work experience. However, according to their individual requirements, all universities of applied sciences also require pedagogical teacher education. If a person wants to acquire a permanent teacher position and full salary, s/he must fulfil these qualification requirements.

The aims and objectives of pedagogical studies are to bring students skills and competences that enable education that meets the needs of different learning styles, and that they are able to develop their teaching according to the changes in the world of work and professions. Pedagogical studies include general pedagogical studies, vocational pedagogical studies, teaching practice and optional studies. Vocational teacher education units enjoy extensive freedom to decide the contents of the curriculum and the methods they use in education. Teaching and tutoring practice is at the core of teacher education. It is a question of learning and the use of different teaching and guidance methods. Also, teacher students study different learning environments. Secondly, teachers are always ethical developers and active citizens in the changing society and world of work. During teacher education studies work specialists discover their modern teacher identity (Haaga-Helia Vocational Teacher Education Development Programme (Curriculum) Handbook 2016–2017).

In addition to educating teachers, vocational teacher education units also educate special needs teachers and student counsellors. The extent of education is 60 cr. Students must already have a teacher qualification. Teacher education units are also researching vocational education and practical learning and offering continuing education for teachers already working in a teacher position. According the regulations vocational education principals must also have pedagogical teacher education.

## Attractiveness of VET teacher education

Once a year, there is an application time for vocational teacher pedagogical education. This is at the same time for all vocational teacher education units. Also, application requirements are the same for all units. Universities of applied sciences enrol their students. Because of the nationwide teacher qualification requirements, education is financed by the Government of Finland and is free for the students. However, the Ministry of Education and Culture controls the number of students in teacher education programmes.

Teacher education is respected in Finland, as is vocational teacher education. In 2016, the total number of applicants for vocational teacher education programmes was 5 328. Of these, 1 590 new students were selected. One interesting question is: why do people who already have a university degree or equivalent and are working in business life, want to obtain teacher pedagogical education and become a teacher? There have been some enquiries made to find out the answer to this question. For example, in 2006, teacher education units conducted research where 901 teachers were interviewed who had studied a vocational teacher education programme. The most important reason for teacher education was that it gave additional career alternatives. Another reason, nearly as important than the first, was that the teacher work and profession was found to be interesting and attractive and that students wanted to work as a teacher. The third reason was that teacher education was a compulsory requirement for a permanent teacher position and for a full salary (Lahtiranta & Penttilä 2006, 59–61).

The attractiveness of the teaching profession has increased alongside the appreciation of vocational and practical education. This has happened especially after the changes made in education in the 1970s and 1980s. The workforce wants to recruit educated staff members. Possibilities to continue studies in tertiary education also increase the popularity of vocational education. Vocational education has become as attractive among young students as theoretical upper secondary education.

This change has also increased the appreciation of the teaching profession in vocational education. Qualified, motivated students in vocational education mean that we must develop pedagogical methods and the quality of teaching.

Traditionally teachers have had possibilities to influence their work, and decide pedagogical methods and contents of education according to the curriculum. Also, versatile learning environments, classroom education, workshop education, on-the-job learning, international contacts and e-learning environments have given teachers many possibilities to develop their work.

In 2013, there were about 15 000 teachers in vocational education (Kumpulainen 2014, 94–100). This figure includes fulltime and part-time teachers, special needs teachers and guidance counsellors. Some 80 per cent of these fulfilled teacher qualification requirements. Nearly all fulltime teachers fulfilled qualification requirements. Among part-time teachers, not all had completed pedagogical studies. About 53 per cent of teachers were female and some 47 per cent of teachers were male. In universities of applied sciences there were approximately 5 300 teachers in 2015 (Vipunen).

## The role of a teacher

In vocational education, learning environments have varied depending on the sector and level of vocational education. In school-based education, especially among young students, students have learnt in school environments, classrooms and workshops. The amount of on-the-job learning in the actual world of work varies depending of the sector of education. In agriculture and nurse education, for example, on-the-job learning has been more common. In adult education, apprenticeship-type of education has been common.

In school-based education a teacher has been responsible for the education both of practical skills and theoretical knowledge. In the 1990s and the first decade of the 21st century, the amount of on-the-job learning has increased. Vocational subject teachers are still teaching and they are specialists in their own field. But co-operation with working life has increased. When vocational education curriculums have changed from subject-based curriculums to competence-based curriculums the role of a teacher has also changed. The world of work is changing rapidly, and it is difficult for a teacher alone to possess current skills and knowledge about everything students should learn. Teachers are supporting and guiding students in their learning process. It is the role of a student to make the learning work. Teachers are also working together with other teachers and



staff members to plan and develop their work. In addition, teachers are working together with representatives from the world of work to develop the curriculum, and supporting their students when they have their on-the-job learning periods. Teachers are assessing the skills and competence that a student has learned in different learning environments at school and the world of work.

Teachers are also observing students during on-the-job periods. In the world of work there are trainers or workplace instructors taking care of students during their on-the-job period or during apprenticeship. There are no exact education or work experience requirements for workplace trainers. It depends on the company which kinds of staff members are guiding students in the workplace (Vet in Europe 2014, 22–24). There is a short, special, three-ects voluntary education that is offered for workplace trainers.

The role of university of applied sciences is to educate specialists for the world of work and business life, along with developing the world of work and undertaking research and development (RDI). These versatile aims and objectives make teachers' work similarly multifaceted. Teachers are teaching, running development projects and working on RDI projects. In universities of applied sciences there are principal lecturers, who normally must have doctoral degree, and lecturers with master's-level education. The role of principal lecturers varies depending on the university of applied sciences. Usually they are teaching and running RDI projects.

Most teachers in upper secondary vocational education who fulfil the teacher qualification requirements have a permanent position. For example, some 90 per cent of teachers in upper secondary education have a permanent contract (New Insights from TALIS 2013, 95). This is also one reason that makes the teacher position attractive. It also makes it possible for teachers to develop their work long-term. According to research most of the teachers are satisfied with their work and think that their work is valued in society (New Insights from TALIS 2013, 140).

Education providers and universities of applied sciences have the freedom to enrol their teachers and other staff members. It is common practice to publicly notify when teacher positions become vacant. Persons who are interested in such a position are free to apply. Education providers enrol staff members according to their own processes.

# Teachers in a key position in education

Systematic teacher education and teacher qualification requirements have, together with the reform of the education system and curriculum, increased the appreciation and quality of vocational education. Teachers are in a key position for developing and changing vocational education. The work of a teacher is evolving. They use student-centred pedagogical methods, and are facilitators that guide and counsel learning processes. Teachers are working together with other staff members and assessing learning outcomes. The work of a teacher is becoming even more important in the future than it has been previously.

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# Educational support and guidance counselling in Finnish vocational education



*Päivi-Katriina Juutilainen and Kaisa Rätty*

## Introduction

■ Vocational education, as with Finnish education in general, is strongly based on the ideology of equality. The profound philosophy of Finnish society has been that all people must have equal opportunities and the same access to high-quality education. Even when the compulsory education of pupils is completed after comprehensive school, around the age of 16, the strong societal aim in Finland is to also guarantee second-level education for the whole age group. To enable equal opportunities in education and participation in society we have strongly focused on preventing the exclusion of young people in recent years. According to many studies (e.g. Myrskylä 2011), dropping out of education predicts exclusion from several other areas of social life, such as work, social relationships and different activities such as hobbies. Exclusion also disempowers a young person when making life choices and planning their future.

The challenges described above require an able-bodied support system in the educational institutions where every student is able to receive guidance and counselling, as well as educational support according to their personal capacity along the study path. The deep and far-reaching purpose of this support is to empower every student to construct their personal life course, to promote the student's welfare and participation in society and to maximise her/his potential.

To reach this aim, we have had several initiatives and projects in the 2010s, for example the Student Welfare Law and the Youth Law that obligates the education provider to inform the authorities in the case where a student interrupts their studies. According to the Youth Guarantee Act that came into effect in 2013, everyone under the age 25 and recent graduates between the ages 25–29, must be offered an active choice appropri-

ate to the person's situation, no later than after three months of continuous unemployment. Some of the initiatives have focused on quality work, for example, that every vocational institution should have a guidance counselling plan (Valtioneuvoston asetus 799/2014). The Finnish National Agency for Education has also created the national criteria of good guidance and counselling practices to ensure quality.

In this article, we will describe and build up a picture of the educational support and guidance counselling system in Finnish vocational education. We shall concentrate on the second-level education of young people. To begin, we will introduce the student support system in general, then concentrate on the work of guidance counsellors, special need teachers and other welfare staff. Finally, we will look at those demands that a teacher's new, socially extended role raises.

## The holistic guidance counselling system

The support and tutoring of students is a profound task of every teacher in a modern conception of teaching. McLaughlin (1998, 129–136; also Lätti 2007, 67) outlines three different elements of guidance in school organisations that are all carried out by the teaching work and role. First, the educational element includes not only guiding the learning process, but also supporting students' personal and social development and growth. With the emotional atmosphere of the school community we build – consciously or unconsciously – the identity and self-image of a student as a learner, a professional and a member of society. Hence, the mission of every teacher is to work for a positive and inspiring learning environment by developing the student-focused pedagogy.

The second, reflective element means that we seriously consider how the personal and social growth and the psychological wellbeing are enabled and actualised in the school commune. From the perspective of guidance counselling, this means that the whole organisation promotes good and supportive study and a learning culture where everyone is involved and feels themselves to be valuable. This element is strongly in-line with the Finnish welfare legislation, which underlines the meaning of preventive work.

The third welfare element is related to the fact that all staff have a shared responsibility to act in those situations that affect students' wellbeing. The priority of the holistic guidance counselling model is to insure

that every student receives the support s/he needs. The guidance counselling services are described in the guidance counselling plan of the vocational school.

The principle “All teachers are responsible for guidance” is based on the three-in-line-model presented by Watts and van Esbroeck (2000) as early as in the late 1990s. In the model, the expertise of guidance counselling is shared in different levels, which all meet the expectations and needs of the students. According to the holistic model, all areas of the student’s life space are recognised and paid attention to. These areas in the vocational education can be divided as follows (Juutilainen & Soisalon-Soininen 2015):

- Tutoring the learning and studying processes.
- Supporting the development of the student’s vocational identity.
- Helping with student’s choices along the study path.
- Psycho-social support in different life situations.
- Career counselling and supporting the career management of the student.

In the Guidance Counselling Plan of the Vocational School, the principles of student support are described in detail: the substance, guidance counselling methods, responsibilities of different operators, distribution between the staff, the forms of multi-professional collaboration and also the co-operation with parents. According to van Esbroeck & Watt’s model every teacher is responsible for student support areas during his/her everyday teaching (the first-in-line). The second-in-line is a level that is developed in Finland by the tutor teacher system, where every student and every student group has a named, own tutor, who by both personal and group counselling methods takes care of students’ welfare, helps the students with their everyday studying problems and follows how they proceed. The third-in-line, where the students’ educational and psycho-social needs still grow, is a level that means the support of professionals inside the school, such as guidance counsellors, special education teachers, social workers, psychologists and nurses. The fourth level is composed of co-operation with the external professionals of the school organisation.

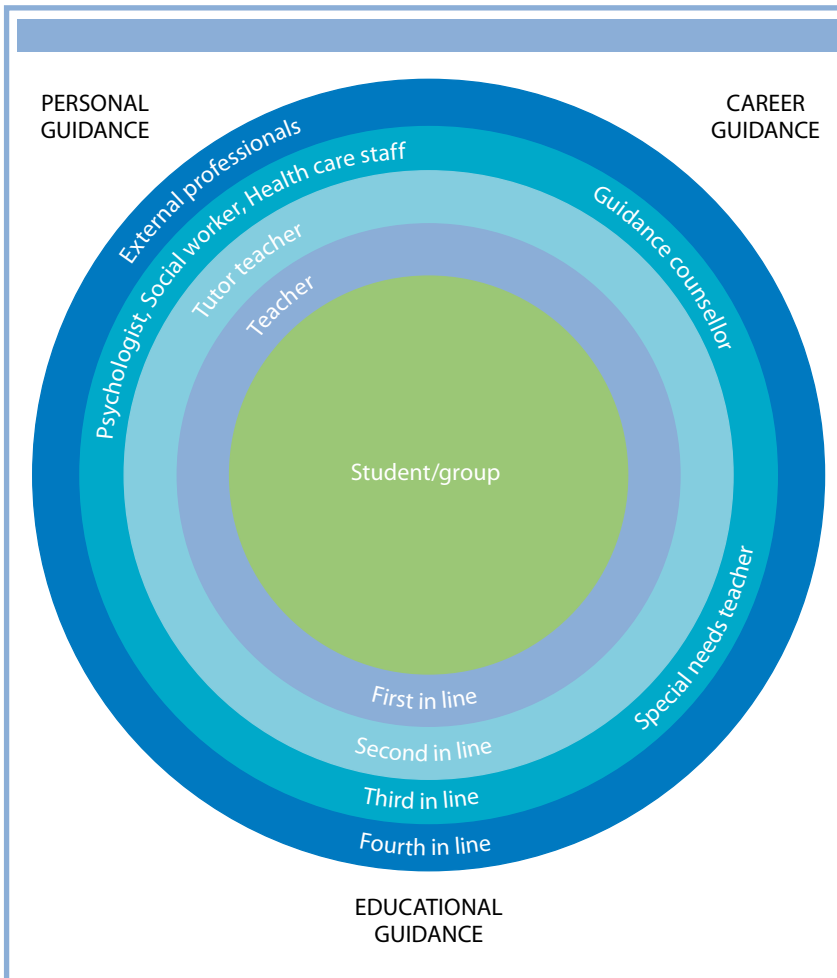


Figure 1. The holistic guidance counselling system.

## Personalisation of the study path

During student-focused guidance counselling the student is ensured to be the subject and the expert of their life and own learning process. The aim of guidance counselling is:

1. The student's agency and resilience is empowered in order to create a meaningful and fluent studying process.
2. The professional competences of the student are developed according to the degree aims.

- The career management skills of a student are developed and the career path of a student is designed in the direction of the student's personal goals.

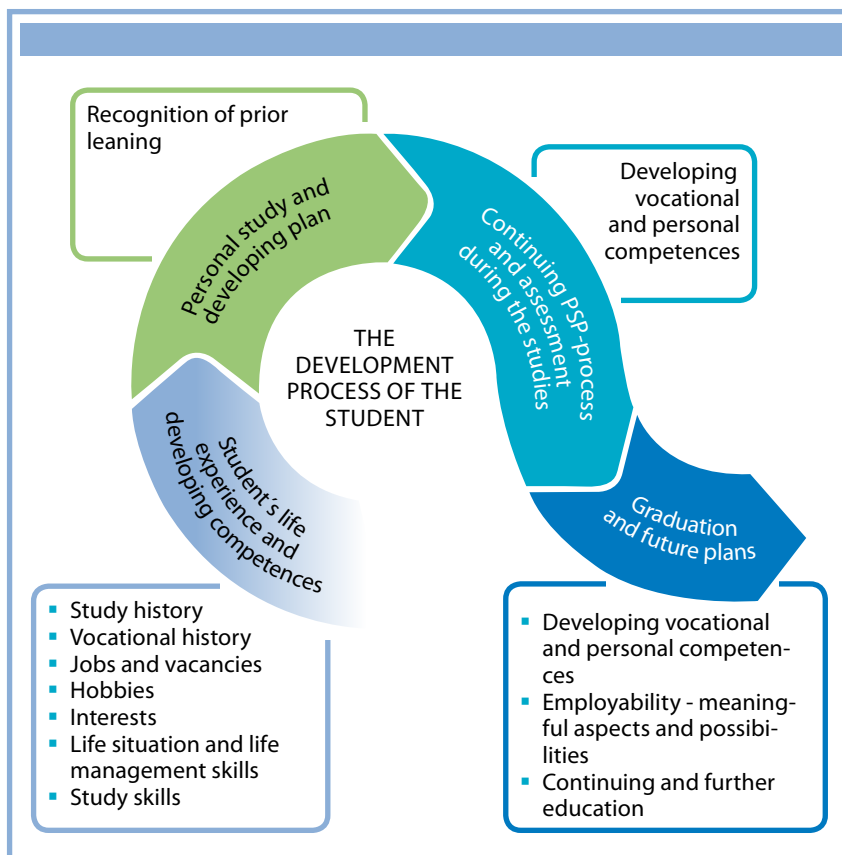


Figure 2. Guidance counselling as a developing process of the student.

At the beginning of their studies the student takes part in different orientative occasions where s/he gets to know other students, the staff, the curriculum, the learning methods and the studying culture of the organisation. The peer tutors, tutor teachers, guidance counsellors, and other welfare professionals are usually responsible for orientation. In co-operation with their own tutor teacher or guidance counsellor the student creates a personal study plan (PSP) on the basis of those competences and abilities s/he has acquired earlier during her/his life span. The process where the student's personal competences and abilities are made visible and taken for granted is called the recognition of prior learning (RPL). At



the same time also the learning and studying skills of the student are assessed, as well as their interest, and are discussed and mapped (figure 2). It is important to have open conversations about the student's career ambitions and dreams already at the beginning of their studies. Also, it is extremely important to discuss possible questions and problems in order that the student is able to get all support s/he needs from the very beginning.

In the process of recognition of prior learning (RPL), earlier studies can be included in the degree but also the competences can be recognised in different demonstrations of prior learning. The competences can be acquired also in the working world or by hobbies. Nowadays in Finland we have paid much attention to the studification of work and free-time experience, especially in different workshop-learning contexts (Verkkovirta). The RPL process continues until the degree is completed, while different vocational schools have defined their own practices to follow.

In the personal study plan (PSP), students' competences and skills are described and methods and forms of learning are planned to help them proceed towards the degree. On-the-job learning is a profound context to construct vocational identity and to build the basis for getting a job. Different projects in co-operation with working life have become more and more important arenas for getting a job because they allow the student to network and create personal contacts with the firms and other organisations in the field.

In several vocational institutions different mentor systems have been developed where the experts from working life support and mentor the students in their vocational growth and development, and help them to get employed. Likewise, more and more students go abroad to obtain experience of the international working contexts. Nonetheless, questions concerning transition to work or further education are usually activated towards the end of the studies. To meet these needs, nowadays various intensified services, such as job exhibitions where employers and employees meet each other, are arranged.

## Career guidance and counselling

Guidance counsellors came into Finnish schools in the 1970s along with the reform of comprehensive education. Guidance counselling was introduced into vocational education in the 1980s (Merimaa 2011, 3–34). According to our legislation, the 60-credit-university studies are required

to give guidance counselling in the secondary and upper secondary education in Finland. All Finnish guidance counsellors undertake teacher training as well.

In vocational education, guidance counselling has traditionally been partly integrated to the pedagogy in general, partly implemented by qualified guidance counsellors who offer individual conversations, small group counselling and sometimes also counselling lessons. Nowadays, guidance counsellors use a number of digital methods as well. The role of a guidance counsellor is emphasised in the situations when the student is looking for a new direction for their studies or life.

Along with increased choices and the personalisation of the studies, the work of a guidance counsellor is increasingly focussed on tailoring the individual study paths of the students. As van Esbroeck and Watts suggest (2000), the role of a guidance counsellor strengthens when the needs of the student grow more and more. Hence, the guidance counsellor's role is critical in different transitions and joint-situations, and when there is a risk of the student dropping out from education. The expertise of guidance counsellors is also needed concerning the development of career management skills and the plans for further education and the future careers of the students.

Besides the personal interaction with the students, guidance counsellors also have a role as guidance counselling experts in their organisations, where they coordinate the overall system of information, guidance and counselling services. So, both various consultative and multiprofessional tasks have strongly increased over the past ten years in Finland.

## Special support in vocational education

The vocational education student body is very heterogeneous, as almost the whole age group is attaining the secondary education. According to the equality principle and government's Youth Guarantee, a study place is offered for every pupil after general comprehensive education. The students with special educational needs (SEN students), especially if they have problems with learning, will often continue their studies in vocational education.

The special support in vocational education began to develop after 1978 thanks to the reform of post-compulsory education (Educational Reform in Secondary Educational Level Act 1978). Prior to this, the educa-

tion of SEN students was organised mostly in special vocational schools, but during the reform “the education for all” principle was strengthened and the SEN students were accepted into general vocational schools (Hirvonen 2010).

In 2014, 16 per cent of students in vocational education needed special support in Finland. Over 80 per cent of SEN students attended general vocational schools, mostly in the same groups with other students, and only 12 per cent of SEN students studied in special vocational schools (Tilastokeskus 2015). There is also preparatory education for vocational training (VALMA) organised for those students who need extra training in key competences for lifelong learning and support with career choice. A student can attain this kind of preparatory education in either six or 12 months depending on their needs. For students who have more severe learning problems, there is the possibility to participate in preparatory education for work and independent living (TELMA), in which daily skills are the main subject to study.

In legislation the special support means students’ pedagogical support and specific teaching and learning arrangements, which are structured on the basis of each student’s personal goals and capabilities. The student may need special support because of learning difficulties, disability, illness or some other reason (Law on vocational education 630/1998).

The aim of special support in vocational education is to help the student achieve the same qualification as other students. Vocational schools are obligated to organise adequate guidance counselling and support, so the SEN students have equal opportunities to pass the vocational education. If the student needs continuous special support, an individual educational plan (IEP) will be made. IEP will be made together with the student, and their parents if they are under 18 years, a tutor teacher, the vocational special needs teacher, and possible other specialists like a rehabilitation counsellor. In IEP the reason for special needs, the strengths of the student, the concrete things s/he needs help with and the offered support are documented. The IEP is updated regularly and the support’s effectiveness will be evaluated. If needed the vocational skills requirements can be adapted. If there are adaptations in some of the requirements, the individual goals will be planned and documented in IEP (Law on vocational education 630/1998 1998).

In the beginning of the studies the literacy and mathematical skills of new students are tested in almost all the institutions. The same tests are

used throughout the country. In some vocational schools new students will also be interviewed by a tutor teacher and a special needs teacher to figure out what kind of learning problems they might have (Pirttimaa & Hirvonen 2014).

The special support in vocational education includes different forms of support, which are described in each organisation's Plan of Special Support. The main way of supporting a SEN student is individual teaching arrangements. This means, for example, that the SEN student gets all the material printed if writing is difficult for them, or may get some extra hours of help in problematic areas, or can show their competence orally instead of written. Teaching arrangements are made by a vocational teacher and therefore teachers need continuous training in learning difficulties and how to help students with them (Räty 2016).

Individual learning paths have been discussed widely in recent decades. For example, it's possible to increase the amount of on-the-job-learning if it's a suitable way for the student to gain competence. In some vocational schools there is also a possibility to study in flexible groups if the student wants to study faster or slower than the others. An individual learning path can also lead the student to increase their learning or language skills in preparatory education for vocational training (VALMA) and then go further with their vocational studies after these skills have been achieved.

Guidance is an important way of implementing special education in vocational education. According to the interviews of vocational special needs teachers (Räty 2016), guidance is the main tool in special education as well. The work of the vocational special needs teacher is often one-to-one with a SEN student. Via guidance, the special needs teacher tries to find out what the student needs help with and which are the best ways to help the student with their difficulties.

An important part of vocational special needs teacher's work is co-operation with tutors, vocational teachers, guidance counsellors and preventive social work and health care professionals. Tutor teachers and vocational teachers need consultation and continuous further education about learning difficulties and special educational strategies. The co-operation with student welfare services is important, because many SEN students have multiple difficulties, in which they need support. In the next section student welfare services will be introduced.

## Student welfare services

Student welfare services are offered for all students in all vocational institutions for young people. The aim of student welfare services is to support communal and individual welfare, a healthy and safe learning environment, promote mental health and prevent social exclusion. According to the student welfare legislation (2013), the student welfare services consist of two levels: communal and individual. The communal student welfare work consists of preventive actions, in which students' learning, welfare, health, social responsibility, interaction and inclusion are promoted. Additionally it includes developing one's health in a safe and accessible learning environment. Individual student welfare services cover individually designed services, for example, health care and social work.

Every educational provider has to have a Plan for Student Welfare Services. In the plan it's outlined how the student welfare services are organised. Usually it's made by the student welfare group, which typically consists of a guidance counsellor, special needs teacher, school nurse, social worker, psychologist and representatives of vocational teachers and students. There may also be external partners like a youth worker or community worker participating in the student welfare group's operations. The aim of the student welfare group is to organise student welfare work in the vocational school.

The student welfare group plans the general activities which are carried out during the school year. The activities can be integrated in the teacher processes, various lectionaries, group interventions, events etc. For example, when the aim is to promote students' mental health, the student welfare group can organise actions for grouping in the beginning of studies, include social skills-learning programmes in studies and/or establish mental welfare peer groups in which anyone can attend. Some older students can be working as mentors and help the beginners to build fellowship. All these actions, which aim to make the school community warm and welcoming for everyone, will also prevent disruptions, violence and bullying in the school. There is zero tolerance for bullying, and if any bullying occurs, there is a plan designating who will intervene in the situation and which are the suitable actions to stop bullying immediately (Perälä, Hietanen-Peltola, Halme, Kanste, Pelkonen, Peltonen, Huurre, Pihkala & Heiliö 2015).

Promoting the participation of students and parents is an important way to increase students' welfare. Students' participation is supported with adequate information about school life and the possibility to take part in the planning and decision making in school matters. Supporting students' inclusion requires a communal culture, in which a safe learning environment and listening to the students have a strong presence. There are different forms of action, like mediation and peer tutoring, which increase the experience of inclusion. It's also important that information about wellbeing is asked regularly (Perälä et al. 2015).

According to the student welfare legislation, all school personnel are responsible for maintaining and promoting students' welfare. The teachers and the student welfare group have the main responsibility of welfare work, but even the kitchen personnel and a cleaner will contribute in their own area of responsibility. For example, when the aim is to prevent absenteeism, the main responsibility is of the teacher, who will check the attendances and marks absences in an electronic system. The teacher tutor will check the absences regularly and at short notice contact the students and parents if needed to clarify why the student is absent. If there is a reason to be worried, s/he will contact the other professionals and start individual welfare work. The responsibility of the cleaner is also to inform the teachers if s/he continually sees the students not attending the classes (Mahkonen 2015).

If a student has problems with studies, life skills, life situation, mental health or, for example, an acute crisis, the individual student welfare process commences. Each vocational school has a school nurse, a social worker and a psychologist, who will individually meet students when they need support. The school nurse offers help in case of illnesses, mental health, substance abuse services, and sexual health, while the social worker supports specifically with behavioural and social problems, which can occur as absenteeism, school failure, bravado or breaking the rules. Additionally, the psychologist will mainly help with emotional and social problems, and problems with learning. The student has a right to get an appointment with a school nurse, a social worker, or a psychologist within seven working days. In the event of a crisis the appointment must be arranged within two working days (Perälä et al. 2015).

According to the student welfare legislation, all personnel in the vocational school are responsible for being aware of the students' welfare, and if someone becomes worried about the student's welfare s/he is obligated

to start a process to help the student with their problems. Primarily s/he will help the student to meet the right expert, meaning usually a school nurse, a social worker or a psychologist. When needed, s/he will gather a multidisciplinary group to discuss the student's problems and find solutions for them. The student has the right to define who s/he wants to be a member in the multidisciplinary group. Even external specialists, such as therapists, can be asked to become a member of the group (Mahkonen 2015).

Obligation of confidentiality is carefully mentioned in the process of the individual student welfare work. In the individual student welfare work the information of the student's problems, possible diagnosis, home life, etc. can be shared only with the multidisciplinary group, which is gathered to take care of this student's situation in particular. They can share information only if the student – or the parents when the student is under 18 – allows them to do so.

## Conclusion

In this article we have discussed the ways to support students' welfare in Finnish vocational education. The aim of this work is to insure a safe learning environment, equal possibilities for studies and necessary support and guidance counselling for all students. The legislation is strongly based on the idea of equality, and all the vocational schools are obligated to show literally how the guidance counselling, special support and student welfare work are implemented in the learning environment.

The focus of guidance counselling, special support and student welfare work has been more and more on the idea that all teachers will have an important role in supporting the students. In guidance counselling the holistic view means that all teachers will have an important role in the study and career counselling. The ideas of inclusion encourage the teachers to develop their pedagogical methods to meet the needs of the students who need special support in learning. Additionally, the new legislation obligates the whole personnel to take care of student welfare.

Hence, all teachers need ongoing training and mentoring by specialists in these obligations. In every school there are specialists in career counselling, special support and student welfare who will support personnel with taking care of all the students. The continuing education of all personnel

is important, so the attitudes and requirements to meet the heterogeneous group of students are developed.

The aim of vocational education is that all students will receive strong professional competence and complete their studies. There should be no dropouts, and all students are helped to find their own way to study and to strengthen their professional and life skills. This goal requires the commitment of all personnel. There has been a lot of work done in this direction in Finland, but this work must continue.

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# Quality assurance in Finnish vocational education



*Mika Saranpää*

## Backgrounds of the article and quality work

■ Quality work in Finnish vocational education has important links to the European system. There is, for example, a recommendation, “The European Quality Assurance Reference Framework for VET”, which Finnish vocational education providers follow.

In many discussions about Finnish education and vocational education, one aspect is especially quite often highlighted: compared to some other countries, what seems to be different is that there is a bigger trust in education providers and teachers in Finland. Even though vocational education receives national funding and is financed by taxpayers’ money, the work of education providers and teachers is not strictly supervised and controlled.

This can be seen in the quality of the work. On the national level quality assurance is executed in a development-focused manner. Development-focused evaluation means that the mission of all evaluation and assessment is in development. It also means that evaluation is process evaluation: it is done during action and during the work processes. This means that development-focused evaluation is also self-evaluation and is contextual and collaborative (different actors are involved: students, teachers, work places, stakeholders). Development-focused evaluation can focus on different levels of action and can be pursued through different methods and tools.

A development-focused attitude applies to the quality work of education providers and to pedagogics. Teachers can work quite freely – but are required to embed quality work in the carrying out of their tasks. Highly educated teachers have an attitude of research and development orientation in their work.

## The big picture

If there is one thing that encapsulates the quality of Finnish work within vocational education, it would be Deming's circle: PDCA (plan, do, check, act). In the fields of Finnish vocational education this has many variations. Names of the phases of the circle may vary and the tools in practice may be different, but all share commonalities with Deming's basic principles. One must plan their work, implement plans, evaluate what is happening – and must interpret evaluations and improve planned approaches.

This is reasonable because Deming's circle can be seen also in relation to another circle: Kolb's circle of experimental learning (doing, reflection, verbalising and active experimentation). Kolb's circle can be seen at the base of all vocational education and its core processes.

Quality work, seen as pedagogics, works in the same way as vocational education does: planning and doing, reflecting on planning and doing, and this creates learning – and then planning and trying out something else, if needed. The need for “something else” is always there, because of client orientation; all situations are new because clients are new. A development-focused approach is no more or less than an ontological necessity in vocational education. So, quality work and pedagogical work are thus strongly linked.

There is also another link between quality work and pedagogics. The main goal of quality work is to try to ensure that the competences promised by the qualification certificates are a reality and work places and other parties can trust certificates. It doesn't matter whether quality is seen from the point of view of clients (students, work places, parents of students under 18), personnel (teachers, administration), stakeholders (community, government, unions, other education providers) or leaders and managers (principals, education managers). Vocational education qualification certificates that are awarded by education providers promise something: competence. Maintaining quality in vocational education always means that competence with a certificate truly exists.

Of course, one can divide quality work in vocational education into smaller points of view. But in the Finnish system, competences that are promised by a certain qualification diploma ground everything else. This cannot be overlooked. If competences that are promised by the diplomas are the basis of quality, it ensures that quality work acts with core process-

es of education providers. If promised competencies are the basis of quality, then quality work will help to develop pedagogics that is supposed to help and improve learning and competences. And this is what schools are for. There should not be a quality work or a quality system for itself and there should not be quality managers just for themselves – just as there is no teacher for themselves. Everything is for clients and competences.

The Finnish National Agency for Education distributes the qualification requirements to education providers. It ‘distributes’ because there are many parties involved with making these qualification requirements, education providers included. These are national standards and according to these standards Finnish education providers are supposed to make their curriculums for different qualifications.

Among the national qualification requirements, one can find verbalised competences. Competences are written as criteria for assessment. These criteria give some food for thought about quality. Of course, the national qualification requirements also include other aspects that bind education providers. But these verbalised competences are the most important.

Thus, quality can also be many ways of implementing these regulations, which are supposed to produce results. If you ask about quality, you also ask for performance results. Through the implementation of regulations education providers are supposed to get results that are measurable by numbers.

Education providers can develop different pedagogics as they wish. But there are also some economic restrictions. In the forthcoming legislation of Finnish vocational education (to be implemented on 1.1.2018), result-based funding has an even bigger role than previously for Finnish vocational education.

## Development-focused quality work

Competence-based systems in Finnish vocational education require quality work. Quality systems should develop education providers’ core processes. This is possible only if those who are responsible for learning are involved deeply in quality work, such as students, teachers, work places, administrators of education.

Shared leadership is a common way to understand leadership among Finnish vocational education providers. For example, in 2016 the Na-

tional Award of Quality was given to three education providers that have dialogical and caring cultures; all of them have students, personnel, work places and stakeholders working in co-operation on all actions, seeking to build up competences. One of these providers even has dialogical leadership as its main principle of actions, and students from different vocational branches are trained to practice dialogism.

Even though there are different systems for quality work (for example ISO, EFQM, IIP) and some strategy tools that are connected to these (for example, BSC as a steering and measurement tool), all systems and tools are to develop core processes and so to ensure the participation of all involved parties. Participation is the key word in the development of pedagogics. Quality systems should provide people with possibilities to take part in the development of their own education and their work. Students and teachers, work places and stakeholders must have strong participation in quality work. This is one meaning of shared leadership.

In Finnish systems, participation means that from the beginning of the processes, in the phase when goals and ways of doing things are planned, all parties are involved. Quite often participation is representative, but it also includes procedures when people take part, for example, in strategy planning with some social media tools. On the micro-level, students and student groups are involved in planning their own education (personalisation).

It seems that with all education providers' quality work, the participation of work places is somewhat more difficult than the participation of students and education provider's personnel. Work places tend to say that they don't have time for such, even though they realise that training providers are producing their future personnel. They would like to take part, but the demands of their core business mean that there is little time for anything else.

Some education providers are developing tools for the better participation of work places but on a larger scale this is still a work-in-progress. Now, the normal way of participation is occasional meetings with the training provider. Additional research and client-oriented approaches are being developed in this sector to ensure better participation of work places in future.

## What is evaluated within Finnish vocational education?

If quality is in question, what is evaluated in Finnish vocational education? As previously stated, if we think about quality in vocational education, we must think about the competences that are implied by the diploma. How to guarantee that those with a diploma have such competences?

In the different quality tools that are used in Finnish vocational education there seems to be some common features. They all seem to evaluate from these points of view: leadership, strategies, personnel, networks and use of resources, processes, results – and quality system as such, whether it creates development and improvements or not. Within vocational education all these aspects should be approached from the points of view of effectiveness, efficiency and economy of operations.

All these aspects should ensure that the work done by training providers is effective. This means, for example, that qualifications are produced and students receive required competences. Also, it means that students are employed or can continue their studies in higher education (in Finland, one can apply to universities after acquiring upper secondary vocational education and training). This means also that qualifications are attained in a certain time period. Ways of competence development should be somehow rational. And third, this is a question of resources: how they are used as effectively as possible (for example, the number of contact hours per week for students or number of students per teacher).

With these aspects, one can evaluate how planning is done. How education providers plan their goals and approaches on different levels of action. For example, one can see this from a manager's work: How are strategies planned to be implemented in a certain area of education? Who is involved in the planning and how? And you can see this as the teacher's work: How is work planned and how do teachers plan pedagogical approaches? Who are involved and how? What kinds of networks are used during the education process and how do they help students' learning?

One can also evaluate how planned approaches are deployed. Are there different levels of deployment across different units of education providers? How do students or work places recognise the deployment of shared pedagogical principles on different qualifications? For example, if there is an agreement from an education provider about personalisation processes, do all students, regardless of qualifications, get what they are supposed to? Or

is there really as much co-operation with work places as there is supposed to be?

One positive example: a quality awarded education provider in 2016 received good process overviews. But at the same time the education provider has, as a core value, client orientation. This means that if the situation requires, teachers are provoked to ask client needs first – and if required, to pass process definitions. Definitions are there to help, not to restrict client orientation.

Another not so positive example: there may be some education providers that have written rules for teachers regarding different matters. The education provider may think that the teacher's work is in control. But the teachers themselves may not have even heard about such rules. These are buried in the mystical depths of the intranet or in some other place – and what is even more disturbing is that they are produced by a small group and no one has discussed such rules with the wider organisation. What should be learned here is that good will does not produce quality; something has to be done in practice with teachers and other actors.

Then with quality there are aspects of assessment and refinement. One can ask how assessment is completed and what it means for development. Also, what kinds of metrics are used and how are measurements interpreted? It is all about learning in the organisation. How the organisation – with a little help from quality assurance methods – stimulates the learning of each of its members and associates. Quality work and pedagogics, Deming and Kolb, shake hands again.

## Numbers as qualitative entities

Of course, there are aspects of quantitative results in Finnish vocational education. When we think about quality assurance, quantitative metrics are just as important as qualitative. One can ask the opinions and experiences of students, personnel and work places, for example. But you must also check what the exact results are. For example, the number of drop outs, number of certificates, completion percentage and so on.

These numbers also tell us something about the quality of training providers' work. It seems that good quantitative results are followed by good qualitative results. For example, the number of dropouts seems to be smaller if the culture of the training provider inspires co-operation between students and teachers, if the culture and resource use inspires guid-

ance as the basic work of teachers. There seems to be good quality also if values provoke good relations and the respect of many kinds of clients. Through the numbers one can see the quality. Good numbers point to good practices. Of course, there is always a danger of lowering standards to get good numbers. It is possible, but it seems that it happens rarely. In Finnish vocational education this is partly monitored by the national assessment of learning outcomes.

## Assessment of learning outcomes as a part of quality assurance

In Finland there is also a national evaluation centre which has, as one of its duties, the evaluation of learning outcomes (Finnish education evaluation centre, FINEEC). They make evaluations of two to four qualifications' learning outcomes each year. These evaluations have a larger implication on quality: "Learning outcomes evaluation will study whether the objectives of the vocational upper secondary qualification and professional competence required in working life are attained." (FINEEC webpage).

These evaluations are mainly statistical. Education providers report numbers of vocational skills demonstrations (students' competences are assessed on vocational skills demonstrations, on a scale 1–3), places of demonstration (places should be work places, but they can also be schools), participants of assessment (there should be someone representing the work place and a teacher, but it can vary on different occasions) and so on.

With statistical reporting, education providers also complete a self-evaluation on certain common criteria – some of which are qualitative (for example, resources used in pedagogics, availability of the on-the-job learning places, teachers' qualifications, planning of work demonstrations together with work places). With this information FINEEC experts make reports about the assessment of learning outcomes.

What has been interesting about the latest evaluation results (autumn 2016), is that according to this statistical information there seems to be quite good competences among students. But it is also said that the assessment of skills demonstrations seems to be highly dependent on the assessors. And what is still more interesting is that teachers seem to give lower numbers than assessors at work placements.



Does this mean that teachers are more rigorous in their assessment than work placement assessors? Or could it be interpreted so that work-place assessors really know what sort of competences are needed in work? And teachers know what is needed for the qualification requirement? But what does this mean for the qualification requirement? How are those requirements understood by different actors of assessment? These evaluations provoke difficult questions. But we must remember that what is missing from these evaluations of learning outcomes are evaluative visits made to training providers. All evaluations are based on written papers, the reasons for which can be attributed to availability of resources.

Still, it is possible that the difficult questions raised by evaluations of learning outcomes could be answered a little bit more accurately if training providers were asked directly and especially those who do the assessment. And what could be the most important would be if someone could watch assessment situations and listen to the assessment dialogue. There is still a plenty of work to do on quality assurance in Finnish vocational education.

## Conclusions

The author of this article has worked for seven years in the committee named yearly by the Ministry of Education and Culture to award quality to Finnish vocational education. The committee's responsibility is to read the quality award applications of the education providers and to select among them appropriate visits for evaluation. Another task has been to visit and evaluate the selected educational providers and to write a report about the results of the evaluation. Thirdly, the committee's job is to make a proposal of quality-awarded vocational education providers. The Ministry of Education and Culture makes the final decisions.

I write about the best of the best. Not all education providers in the Finnish vocational education system have the same standards of quality. All education providers do not have highly developed systems of evaluation and improvements. But all have quality systems and ways of improvement. The Finnish government's "Strategy for quality in vocational education 2011–2020" requires that all Finnish vocational education providers must have a quality system and all of them must evaluate their quality systems according to the guidelines of the Finnish National Agency for

Education. The Finnish legislation also requires quality assurance in vocational education.

Quality assurance takes many forms in Finnish vocational education. The core of everything is continuous learning: learning of students, learning of organisations, learning of teachers and managers, learning of work places and networks. Learning means development. All quality work in Finnish vocational education is development focused.

Competences that are defined in qualification requirements give a frame for all quality assurance. Assessment of competence and certificates merited are the foundation of quality. Quality assurance tries to ensure that everything that the education provider does works in that direction. Leadership, strategies, personnel, networks and resources, processes, products and services all try to ensure the competence growth of students.

Quality assurance can use many tools and systems. What the law requires is some system of evaluation of quality. Education providers must reflect on their work. This means verbalising plans and approaches. They must define ways of planning for different levels of work. They also must make sure that plans are implemented in action. And still, education providers must assess and refine their plans and approaches and show that results come from its actions. Thus, maybe the Finnish law is demanding a well-developed pedagogical leadership – a quality oriented leadership of pedagogics.

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# Vocational lifelong learning options

*Jari Laukia*

## Introduction

■ A significant aim and objective of the European Union is to make vocational education more attractive. One way of achieving this is to place emphasis on lifelong learning in vocational education and training. This also includes higher education (Stronger vocational education and training for better lives 2015). This article focuses on the continuing education possibilities of a student after their initial vocational education qualification in Finland.

## Further vocational skills

After obtaining their initial vocational qualification, it is possible for a student to deepen their vocational speciality via further education. Upon accumulating work experience and possibly some additional education, a person can show their skills and competences and obtain further vocational qualification. According to new regulations, which are coming into effect on 1 January 2019, there are 65 further vocational qualifications in Finland. The national qualification level of those qualifications is four. The extent of further vocational qualification is 180 cr.

A special vocational qualification (see picture Education system in Finland, page 15) is far more focused, and in this case a person must have some special vocational skills. These special skills will be learned in the world of work and during further education (VET in Finland – Country report 2014). The national qualification-level of special vocational qualification is five and the extent of qualifications is 160–210 cr. According to the new regulations, there will be 56 special vocational qualifications. Both further vocational qualification and special vocational qualification are competence-based qualifications. Students must show the skills and competences they have acquired in special demonstrations. There

are demonstrations for all modules of the qualification. Demonstrations are assessed by a person representing the employer, a person representing workers and a teacher. In 2015, 13 902 persons obtained a vocational further qualification and 5 492 persons obtained a special vocational qualification (Statistics Finland).

## Tertiary education path

During the 1980s there was a great reform of upper secondary education in Finland. After basic education, it became possible for a student to continue with upper secondary general education or vocational education. Important reform saw new regulations opening a path from vocational education to tertiary technical education.

New regulations were accepted in the Finnish Parliament after great debate. Those who opposed the possibility to continue from vocational education to tertiary technical education felt that the quality of vocational education was not high enough for tertiary education studies. Supporters, on the other hand, saw it important to increase the quality and attractiveness of vocational education. Also, the path to tertiary education supported lifelong learning (Laukia 2013, 283–286). It was also a question of the appreciation of education between academic education and vocational education.

The path for tertiary education made it necessary to develop initial vocational education curriculums. The extent of education became three years across all vocational education qualifications, and was comparable to upper secondary general education. There was an increase in general subject studies like civics, information technology, foreign languages, arts and environmental studies. The change of curriculums also answered the changing needs of the world of work.

The establishment of universities of applied sciences in the 1990s made the studying path from vocational education to tertiary education more clear. At the moment, initial vocational education, further vocational qualification and special vocational qualification give eligibility to apply to universities of applied sciences and scientific universities studies. In 2015, some 37 300 new students commenced their studies at a university of applied science. 17 000 of them had studied upper secondary initial vocational education qualification (Vipunen, FNAE Education Statistics 2015a). In scientific universities, on the other hand, 21 000 students com-

menced their studies and 2000 of them had completed an upper secondary initial vocational education qualification (Vipunen, FNAE Education Statistics 2015b).

Most of the students finishing their vocational education proceed directly to the workforce or they establish business of their own. This is still the main aim and objective of vocational education. However, the education system in Finland does not have any so-called dead ends, it is always possible to continue studying. Also, versatile free education institutions offer studying possibilities.

## Conclusions

Lifelong learning is one philosophical aspect of Finland's education policy. The continuing education possibilities for VET students has increased the attractiveness of vocational education and developed the quality of education. Vocational education educates a skilled labour force. However, if a student is motivated and studying hard it is possible for them to continue their studies. After a couple of years' work experience, some people developed an interest to continue their studies. As persons with higher education qualifications and practical work experience, they are indeed specialists in their own field.

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