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# VOCATIONAL EDUCATION AND TRAINING IN FINLAND AND GERMANY

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Vocational education and training is an important part of the education system in Finland and Germany. These two countries were selected to give some ideas on the structure of vocational education and training system and the process of the training from which Northern Ireland might take as a good example.

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## Introduction

Vocational education is an important part of the education system in Finland and Germany. These two countries were selected to give some ideas on the structure of vocational education and training system and the process of the training from which Northern Ireland might learn as a good example.

## Vocational Education and Training within the Finnish Education System

The Finnish education system (shown in Figure 1) comprises pre-primary education, basic education, general upper secondary education and vocational education and training, as well as higher education at polytechnics and universities<sup>1</sup>.

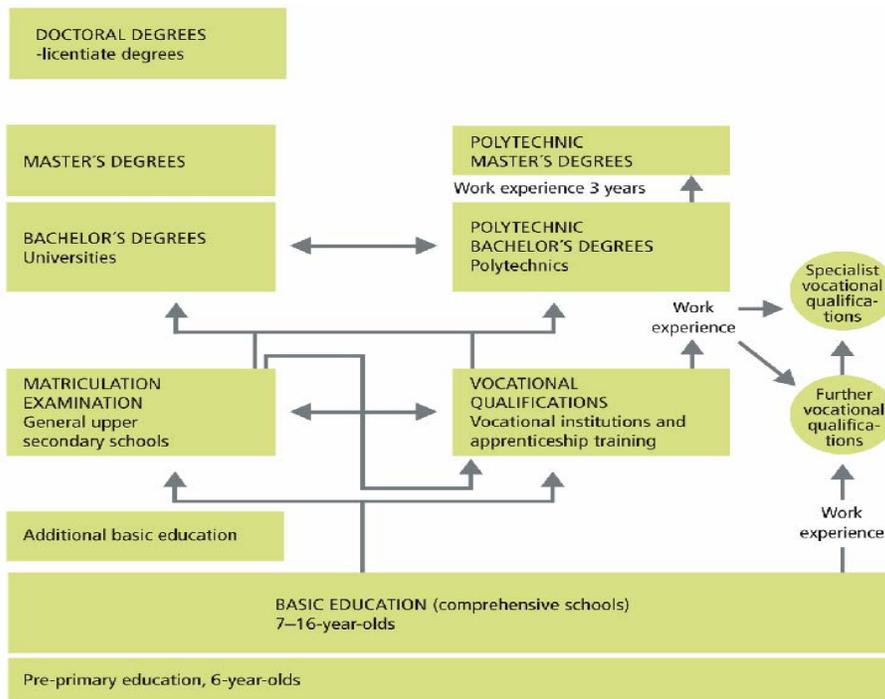


Figure 1: the Finnish education system

Finnish Vocational education and training has been developed in the education system to lead both employment and further studies. The goal of vocational training is to provide students with sufficient vocational skills required at work and the necessary skills for further studies<sup>2</sup>.

<sup>1</sup> Data from Finnish Ministry of Education

[http://www.minedu.fi/OPM/Koulutus/ammattillinen\\_koulutus/?lang=en](http://www.minedu.fi/OPM/Koulutus/ammattillinen_koulutus/?lang=en)

<sup>2</sup>Finnish Ministry of Education "Education for Global Responsibility-Finish Perspectives" 2007

<http://www.minedu.fi/OPM/Julkaisut/julkaisulistaus?lang=en>

A three-year vocational training qualification completed in a vocational school gives students general eligibility to higher education. Students are also entitled to take the national matriculation examination under certain conditions. Students may receive credit for previous studies or work experience to count towards their qualification. Vocational training is structured in modules and offers a wide range of alternatives for individual choice. Training is developed and delivered in close cooperation with employers. All qualifications include at least a six-month work placement, during which students can learn a part of their vocational skills in real working environments. Students' skills will be assessed through skills demonstrations during work placements.

### **Joint application systems<sup>3</sup>**

Students apply for upper secondary education through the national joint application system. The upper secondary joint application system following basic education is common for both general and vocational education. Selection criteria for vocational education and training usually include the general study record, grades emphasized in the field of study, work experience and various entrance tests. Priority is given to young people without prior vocational education. Those with the matriculation examination, following general upper secondary education, and Vocational education and training graduates can apply for polytechnic studies through the polytechnics joint application system.

The idea of the joint application system is to make it easier for students to apply for further studies (saving time and cost of sending their application form to different institutions). It also helps local education providers to get their students within the system as well. This system makes the application procedure more effective.

### **Apprenticeship<sup>4</sup>**

Both young people and adults can obtain a vocational qualification through apprenticeship training. Apprenticeship training is based on the national core curriculum or the guidelines for the relevant competence-based qualification. The apprenticeship training programme is drawn up by the student, the employer and the local administrative authorities in cooperation and is appended to the apprenticeship contract. The practical part of apprenticeship training is on-job-training. It is complemented by theoretical studies, which may be arranged at vocational institutions, vocational adult education centers or other educational institutions.

Apprentices must be 15 years of age or above at the time of signing the contract and have completed the basic education. The wages are paid by the employer according to the collective labour agreement. The pay may vary in different fields, but is usually approximately 80 % of the wages of a skilled worker in that particular field. The

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<sup>3</sup> Finnish Ministry of Education “ Final report of the Project group for joint application of adult education degree programmes at polytechnics” 2007 <http://www.minedu.fi/OPM/Julkaisut/julkaisulistaus?lang=en>

<sup>4</sup> Luxembourg: Office for Official Publications of the European Communities, “Vocational education and training in Finland” 2006 [http://www2.trainingvillage.gr/etv/publication/download/panorama/5171\\_en.pdf](http://www2.trainingvillage.gr/etv/publication/download/panorama/5171_en.pdf)

employers don't need pay wages for apprentices for the time spent in theoretical training, unless otherwise agreed.

There are two kinds of apprenticeship training programmes in Finland: one leads to qualifications, the other one is non-qualification oriented. Most of the apprenticeship trainees are adults. Young people more often choose school-based training than apprenticeship training in Finland.

The assessment of training is designed by the employer and the theoretical education provider. The assessments of workplace training and theoretical education are put together and attached to the certificate. The main part of the qualification involves taking a competence-based test, where students can demonstrate their skills and knowledge through a practical test.

### **Vocational training at post-secondary level**

Post-secondary vocational educational training in Finland leads to specialist vocational qualifications, which are considered competence-based qualifications. The system allows people to demonstrate their vocational skills in competence tests.

### **Polytechnics**

Polytechnic degrees provide knowledge and skills for professional expert functions. They consist of basic and professional studies, optional studies, practical training and a diploma project. Polytechnics carry out research and development and play an important role in regional development, in particular small and medium-sized enterprises. Polytechnics usually offer courses in a number of fields with a professional emphasis. It takes three to four years of full-time study to complete these courses. There are 29 accredited polytechnics in Finland. 18 of them are owned by local authorities and joint municipal boards; others are private.

Polytechnics provide education in the following sectors:

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

### **Continuing vocational education and training**

Finnish publicly provided adult education and training is available for anyone and most vocational training funded by the Ministry of Education. Training is provided by vocational adult education centers, vocational institutions and folk high schools.

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The Finnish adult education system can be divided into two main sectors<sup>5</sup>:

- Liberal and general adult education: In liberal education, students set their own educational and training goals. Education and training is provided by folk high schools, study centers, summer universities or physical educational centers. The range of courses to give students plenty of opportunities to develop themselves professionally or just for pleasure. It is also possible to have language skills recognized through general language examinations.
- Vocational training for adults: Vocational training is primarily intended for those who are or have been employed before. It comprises self-motivated training, labour market training, in-service and apprenticeship training. Education and training that has been specifically developed and organized for adults, is available at all levels. Preparatory training for a skills demonstration is particularly suited for adults, because participants can obtain a qualification only on their work experience or after completing the preparatory training. Adults can also attain further and specialist vocational qualifications (continuing vocational training), which will obtain upper secondary qualifications through a skills demonstration. It is also possible to gain the basic, further and specialist vocational qualifications through apprenticeship training.

## **Vocational Training in Germany**

Vocational education and training is an important part of the German education system (shown in Figure 2). It is composed of on-the-job training with an employer and theoretical education in vocational training schools. This system is called the dual system ( the basic elements of the dual system are shown in Figure 3). Children enter compulsory full-time schooling at the age of six. After 9 years or 10 years completing it, young people still need to attend full-time school or part-time vocational school for another three years as young people are required to attend school from the ages of 6 to 18 in Germany.

The dual system is the largest educational area within the secondary sector. The dual system does not have any formal admission requirements by law, so all the school leavers, regardless of what school-leaving certificates they have can apply to all recognised occupation training. However, opportunities for some young people who want to enter certain occupations will depend on what pre-qualifications they have.

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<sup>5</sup> Luxembourg: Office for Official Publications of the European Communities, "Vocational education and training in Finland" 2006 [http://www2.trainingvillage.gr/etv/publication/download/panorama/5171\\_en.pdf](http://www2.trainingvillage.gr/etv/publication/download/panorama/5171_en.pdf)  
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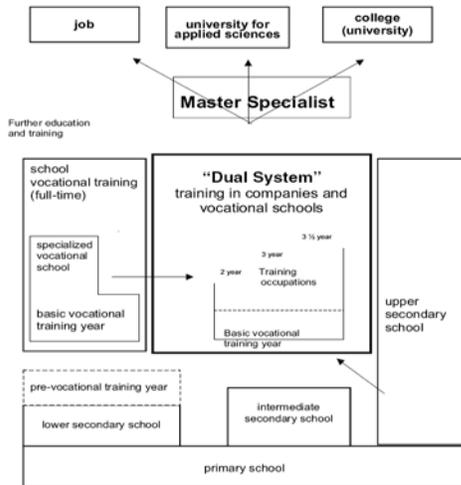


Figure 2: German education system<sup>6</sup>



Figure 3: basic elements of the dual system<sup>7</sup>

The curriculum for the dual system in Germany is based on prescriptive formal guidelines set by governments and social partners. These relate to teacher qualifications, class contact hours and training contents in each vocational training school and institution. The curriculum of part-time vocational schools is based on state government framework agreements. These agreements have established that one-third of the time is spent on general education subjects, for example, social studies, economics, foreign languages and sports. Two-thirds of the time is spent on specialised vocational programs such as technology and economic fields of learning. The vocational subjects must match the requirements of the relevant training regulations. Under the dual system, vocational schools and companies have a joint educational responsibility. Trainees spend one or two days in vocational school and three or four days with an employer. Vocational schools also establish specialised classes relevant to the various occupation needs.

### Apprenticeship<sup>8</sup>

In Germany, once students have completed full-time compulsory schooling, most of them will enter the dual system for two, three or four years (depending on their prior qualification level or the occupation they choose). Apprenticeship is a very important step for further study in technical universities (such as food technology) or even mandatory for those who wish to apply for marine engineering.

In general, the on-the-job training involves apprentices in working on production activities alongside experienced and skilled workers who will teach them the basic skills until they progressively take on more of the work independently. Training in the part-time

<sup>6</sup> Federal Ministry of Education and Research "Germany's Vocational Education at a glance"  
[http://www.bmbf.de/pub/germanys\\_vocational\\_education\\_at\\_a\\_glance.pdf](http://www.bmbf.de/pub/germanys_vocational_education_at_a_glance.pdf)

<sup>7</sup> Federal Institute for Vocational Training "Vocational Education and Training-An Overview"  
[http://www.bibb.de/dokumente/pdf/fohlenband\\_puetz-englisch.pdf](http://www.bibb.de/dokumente/pdf/fohlenband_puetz-englisch.pdf)

<sup>8</sup> Federal Ministry of Education and Research "Germany's Vocational Education at a glance"  
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vocational school provides theory and technical skills. General education courses include German language and literature, mathematics, economics or other social sciences, religion and sports. Apprentices may also undertake other optional subjects.

Apprentices must take a final examination which is set by the Chambers<sup>9</sup> (the competent bodies responsible for Dual System examinations). They also need to take the examination which is set by the part-time vocational school. To qualify for completion of the apprenticeship requires the apprentice to obtain certificates both from the chamber and vocational school. However, an apprentice in the traditional industry or craft trades who wishes to qualify for journeyman status may be asked to continue education to become a master-craftsman through Germany's continuing education and training system.

### **Full-Time Vocational Education School and Vocational Continuing Education**

Full-time vocational schools (supported and funded by the state) are open to students (generally aged between 16 and 17 years) who have not yet been able to attain an apprenticeship or want to prepare for vocational qualifications leading to polytechnic. Attendance at full-time vocational schools may also be credited as the first year of training within a dual system program or lead to university entrance certificates. Graduates from a full-time vocational school may also access the chamber examination to gain a skilled worker certificate. But, students must obtain some practical experience in the workplace and must pass their school subject examinations first.

Vocational continuing education in Germany includes further in-house training and further training regulated by the chamber. Continuing education also comprises general education training which enables student access to universities, polytechnics or vocational colleges. These qualifications and programs are associated with federal regulations for further training. However, state governments also play a role in supporting continuing education that leads to qualifications.

### **Tasks of the Chambers in Germany**

One of the most important tasks of the Chambers is advising companies that train people on all problems connected with training. Such as the structure of the training, the use of training aids, educational, psychological and legal questions. At the same time the Chambers also give advice to trainees. Any employer wishing to engage trainees must fulfil certain conditions regarding their suitability for this task. The company must be able to offer facilities, production programmes or services to train people. In addition, the training employer and any training officers must have specific personal, professional and

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<sup>9</sup> All the companies registered in Germany, with the exception of handicraft business, the free professions and farms, are required by law to join a chamber. The state has assigned to the chambers certain tasks which would be its own responsibility if those chambers did not exist. As a result, the chambers today issue certificates of origin and carnets, set vocational training examinations or, a recent innovation, maintain a register of companies who meet specific environmental standards. They place experts under oath, provide advisory opinions for government departments, and are involved in the appointment of arbitrators and the registration of companies. <http://www.dihk.de/english/>

teaching qualifications. The Chambers will ascertain before the start of the training and also will check during the training whether these qualifications are present.

Each trainee must take an interim examination in the course of the training. The examination serves to ascertain the level the trainee has reached. The Chambers establish boards of examiners to hold these examinations. Every trainee has to take a final examination at the end of the period of training in order to show that they have acquired the necessary professional qualifications. The Chambers will establish boards of examiners consisting of at least three members, employers and employees' representatives in equal numbers and at least one vocational school teacher, to hold these examinations. Rules to be observed in connection with final examinations are issued by the Vocational Training Committee of the Chamber, consisting of employers and employees' representatives in equal numbers and vocational school teachers as consultant members. These rules make provision for the conditions of admission, the form of the examination, the criteria for marking, the issue of examination certificates and the possibility of repeating the examination. The abilities to be examined are laid down in the training regulations. The practical examination will call for samples of work or test workpieces. The theoretical test is conducted as a written or oral examination. After passing the final examination, the trainee will receive an examination certificate. This certificate is not an authorisation, but only one of the conditions for admission if apprentices want to take the Masters' examination and many other further training examinations.

The Chambers hold examinations for persons who have been retrained for a different occupation, setting up the required boards of examiners. Where these examinations are not held for recognised training occupations, the Vocational Training Committees issue the necessary regulations concerning subject matter, purpose, standards, procedures and conditions of admission.