

On-the-job learning

incorporated into
vocational education and training in Finland



NATIONAL BOARD
OF EDUCATION



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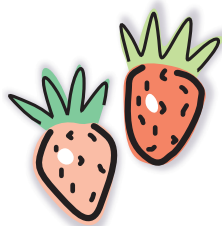
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Introduction



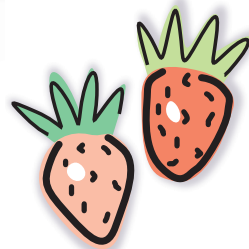
The school-based training pathway has predominated in the Finnish vocational education system. Among young people, the volume of apprenticeship training has been very low. Although diverse types of practical training have been included in vocational education programmes, the system as a whole has been basically institution-centred. This has been possible because vocational schools and institutions are well equipped with up-to-date workshops and other types of learning environment.

In the late 1990s, closer co-operation between the education system and the world of work became a central target of educational and employment policy. The reasons for seeking a new relationship are familiar: rapid technological change, problems in matching skills with work tasks, high unemployment among young people and the increasing importance of lifelong learning. The vocational education system must contribute more to employability and provide young people with self-employment skills.

The Ministry of Education decided that, starting in 1999, all three-year programmes in vocational education and training shall include six months of practical training in a genuine working environment. This is called on-the-job learning, which emphasises a change in the character of conventional practical training. On-the-job learning is guided, focused and assessed training in accordance with the educational objectives determined in the curriculum. Training instructions are planned and implemented co-operatively by the educational institutions and employers.

This means that in the near future the Finnish system of vocational education and training will be moving towards a combination of instruction in vocational institutions supplemented by instruction in workplaces; hence the education system will become less school-centred. Vocational schools and educational institutions will, however, continue to play a major role in preparing and guiding young people to employment and the world of work.

The social partners have also become actively involved in supporting the development of on-the-job-learning. Central government and the pivotal labour market organisations have issued a recommendation promoting on-the-job learning. Moreover, general concern about the ageing labour force and competition for skilled labour have also increased employer interest in recruiting young people, which contributes to the supply of on-the-job training places.



Development of on-the-job learning

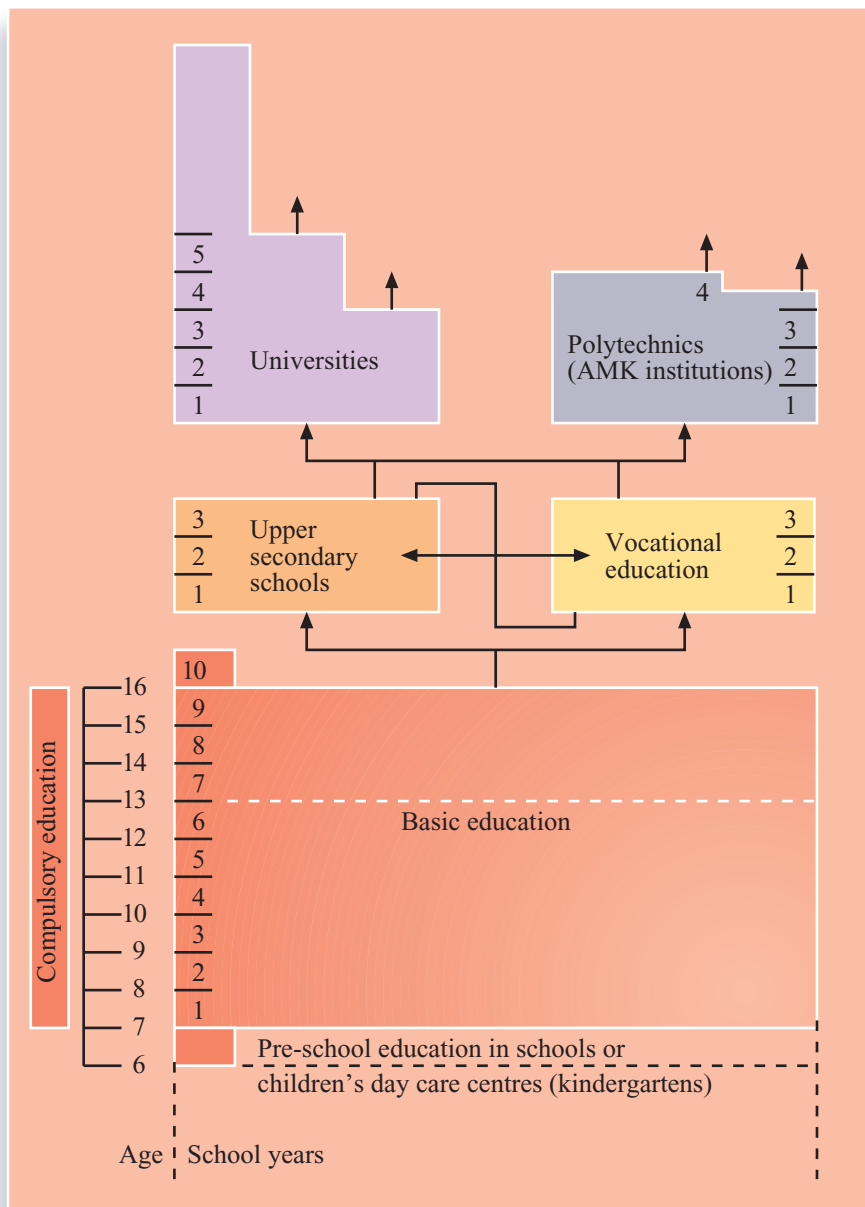
Quantitative and qualitative challenges



Every year, approximately 40,000 young people enter vocational education and training, two thirds in three-year programmes and the rest in two-year programmes. By the year 2001, all initial vocational education programmes will be extended to three years, including six months of on-the-job learning. The vocational education system and the study programmes cover all sectors of the economy. Implementation of on-the-job learning in the workplace will create a need for more than 40,000 trainee places every year. This is an enormous change and several measures have been taken to facilitate a smooth start.

The educational administration has prepared to meet the challenge of on-the-job training by developing models and alternative operating methods in regional projects. During 1998, experiments based on ESF funding were launched under the title 'Bridge from Vocational Education to Work', combining institutional and apprenticeship-type on-the-job training in a three-year programme. Moreover, 16 regional pilot projects have been developing school-workplace co-operation to promote on-the-job learning. Education providers have been informed about the new developments, training and information meetings have been arranged for the principals and teachers of the institutions, and the workplace instructors' training programmes have been updated to meet the needs of on-the-job learning.

The Finnish education system



Benefits for all parties

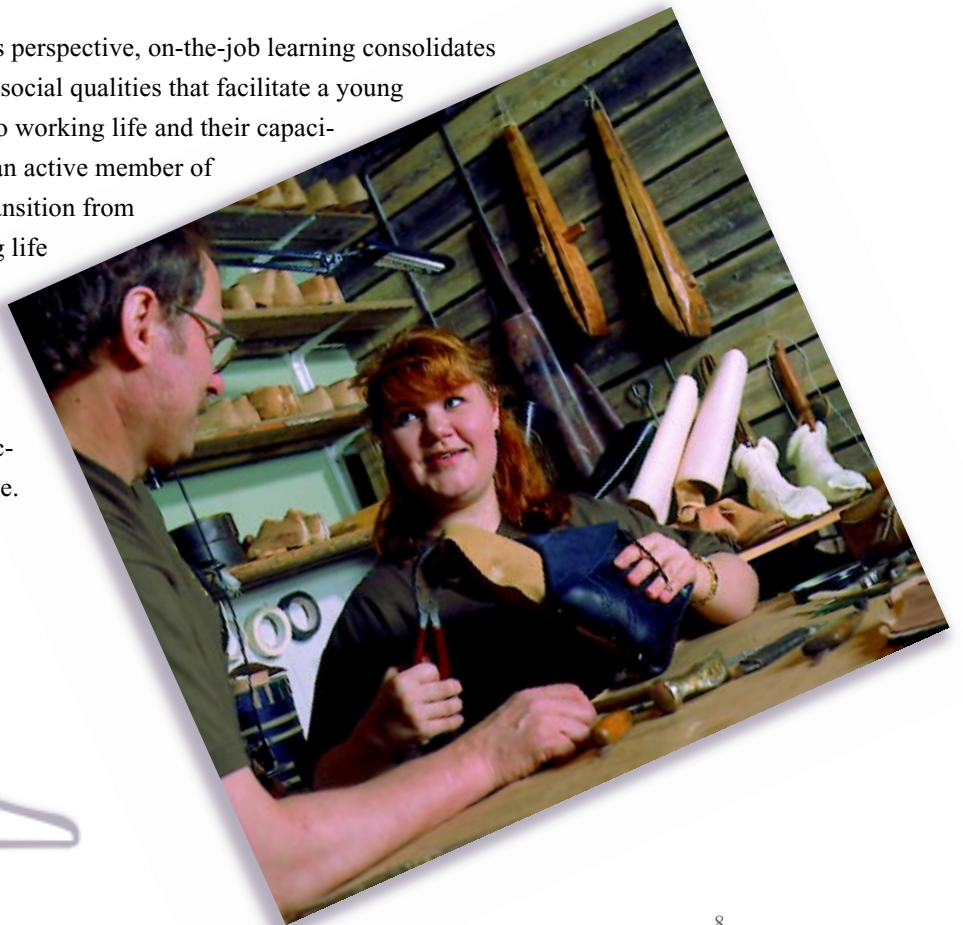


To be genuinely accepted, on-the-job training must offer benefits and motivation for all parties involved. For the student, on-the-job learning provides an opportunity to work with real problems in a genuine working community and to assess their own competence.

All this makes it easier to get a job after school.

For the school, organising on-the-job learning provides an opportunity to develop its work to meet the needs of the world of work and to explore and refine educational objectives, instruction and assessment. In companies, students in on-the-job training may offer examples of new working methods and approaches and involve the company's personnel in a shared learning process.

From society's perspective, on-the-job learning consolidates the personal and social qualities that facilitate a young person's entry into working life and their capacity to function as an active member of society. As the transition from school to working life becomes easier, youth unemployment and marginalisation will decrease and productivity will improve.



On-the-job learning

On-the-job learning in legislation and curricula

Vocational education legislation

The **Vocational Education Act** of 1998 contains several provisions concerning contacts between employers and education and the arrangement of on-the-job learning.

Training arranged in the workplace is based on a written contract between the education provider (the school) and the workplace. However, the student is normally not hired by the employer.

The contract between the school and the employer must specify the tasks of the parties, arrange supervision and assessment of students, provide for any remuneration to the employer and handle any other issues related to training. The occupational safety of the students is a matter of special concern.

A prerequisite for making a contract is that the workplace has a sufficiently high volume of production or services, a wide range of tools and other facilities and the qualified personnel needed to provide training in accordance with the relevant national core curriculum.

Assessment of workplace training periods is the job of the teacher responsible for the instruction together with the on-the-job instructor or trainer appointed by the employer. Students have the right to obtain information on assessment criteria and their application.

On-the-job learning in the curricula and study plans



The national core curricula confirmed by the National Board of Education determine the vocational skills required for each qualification as well as the objectives, core contents and assessment criteria of the studies. They also include the overall objectives of on-the-job learning.

The educational institution, together with the student, is responsible for finding a suitable enterprise for the on-the-job training period and, together with the trainer-supervisor, for controlling and guiding instruction at the workplace.

Educational institutions determine the details of their own curricula on the basis of the national core curricula. This includes determining which components of each study programme are to be learned at workplaces and how supervision and assessment are to be arranged.

Based on the objectives of the vocational study modules as defined in the core curriculum and on the provisions governing on-the-job learning, the institution plans the timing, objectives and arrangement of on-the-job learning. The plan is prepared in co-operation with representatives of local employers and allows for the needs and capacities of local and regional working life.

The objectives, learning assignments, duration and timing of each training period, and the procedures for student assessment are determined by the student's personal study plan or by a joint training plan signed by the student and by representatives of the school and the workplace.

The objectives of on-the-job training are to be determined in such concrete terms that both the student and the on-the-job instructor will understand what the student is expected to be able to do at the end of the on-the-job learning period.

Assessment of on-the-job learning

Generally speaking, the tasks of student assessment include supporting and motivating learning, developing students' self-assessment skills and producing information on the level of skills attained.

Assessment of on-the-job learning should preferably be based on a variety of methods, such as:

- work demonstrations and assignments
- accounts, reports and possibly tests
- project results
- portfolios
- peer assessments.

Teachers and on-the-job instructors are responsible for assessment. All the parties concerned should be aware of the objectives and principles of student assessment, including

- why an assessment is made
- who makes the assessment
- when an assessment is made
- what is assessed
- how an assessment is made
- how those participating in the assessment are guided.

Students are always entitled to receive a separate testimonial from the employer.



Financing and contracts

Financing



On-the-job training is in principle financed with regular funds allocated to vocational education and training. Allocation of public funds to the providers of education (the owners of the schools, mostly municipalities or federations of municipalities) is based on the number of students and on sector-dependent unit prices.

Students receive a study grant and student social benefits such as free meals and compensation for any travel expenses incurred. They usually receive no wages during the on-the-job learning period, except when an employment contract has been made.

Educational institutions may pay the employer for on-the-job training, although the educational authorities maintain that such compensation, as well as any compensation for the work done by the student, should be an exception; in the long run, all parties concerned will benefit from the system.

Contracts

The educational institution must ensure that a written contract is made between the institution and the workplace as required by law, covering the issues referred to in the relevant decree. The social partners and the educational administration have prepared a model plan recommended for providing on-the-job training. There is also another model scheme intended to support an individual student's on-the-job learning

and assessment. This will be signed by a representative of the workplace, the student and the responsible teacher. The models indicate the issues to be taken into account in the contracts.

There is no one model for implementing on-the-job training. The regional pilot projects launched by the National Board of Education have revealed regional differences in the supply of training places. Indeed, on-the-job training arrangements depend to a large extent on the economic structure and location and the nature of the training in the individual regions.

Unanimous recommendation of the parties concerned

Central government and the most important organisations concerned (the national organisations of employer and employee organisations; the Association of Finnish Local and Regional Authorities, representing most of the providers of vocational education; and the Federation of Finnish Enterprises) have signed an important recommendation concerning on-the-job learning. It states the importance of joint actions to ensure a sufficient number of places for on-the-job learning, active involvement in guiding young people at workplaces and setting up pilot projects to promote new training and learning methods.

The recommendation underlines the importance of co-operation, locally and within industrial sectors, in creating places for on-the-job learning and practical training. Potential conflicts between employer and employees shall be prevented by securing the position of employees; the labour market organisations agree that trainees or on-the-job learners must not be used to replace regular staff.

Tasks of the different parties

Educational institutions and teachers

The school plays an important role as a developer of on-the-job learning. It ensures the quality of the training in continuous co-operation with workplaces. The school can be active in several ways, e.g.

- setting up permanent co-operation links with companies and helping to establish and maintain good on-the-job training practices
- participating in regional development work
- developing supervision and assessment practices
- ensuring that teachers have sufficient working life skills and access to continuing education
- training and preparing on-the-job instructors
- keeping up contacts with the social partners
- monitoring national and regional business life to be aware of changes in educational needs.

The institution has to inform employers of their responsibility for occupational safety and of the necessary insurance the company must take out. Above all, it must make sure that students are aware of the basics of occupational safety prior to starting on-the-job training.

Teachers are experts in their own vocational field and in teaching. They participate in planning on-the-job learning and assess the whole process, at the same time marketing the institution's know-how. Employees at workplaces are in turn experts in their own field and in the company's operations. Vocational competence and expertise grow out of co-operation between these two groups.



The workplace, instructors and supervisors

Prior to starting a period of on-the-job training, the employer and the educational institution must together ensure that the student has prepared for the work in question and knows how to observe instructions on labour protection. During the training, the employer is responsible for students' occupational safety in accordance with the law and other regulations covering employees, even if the student does not have an employment contract with the employer.

The workplace appoints an on-the-job instructor, who will participate in instructor training. The instructor's duties and use of time shall be agreed on at the workplace, thus securing practical opportunities to supervise the student.



On-the-job instructors guide the performance of learning assignments, answer students' questions and give feedback on the assignments. Feedback is one of their most important tasks. Pedagogical skills, a broad vision and good teamwork skills are therefore important. Instructors must constantly improve their supervision skills. The educational administration has been able to offer courses for instructors.

As a guide, the instructor familiarises the student

- with the company's operations
- with work assignments, supervising their performance
- with occupational safety regulations.

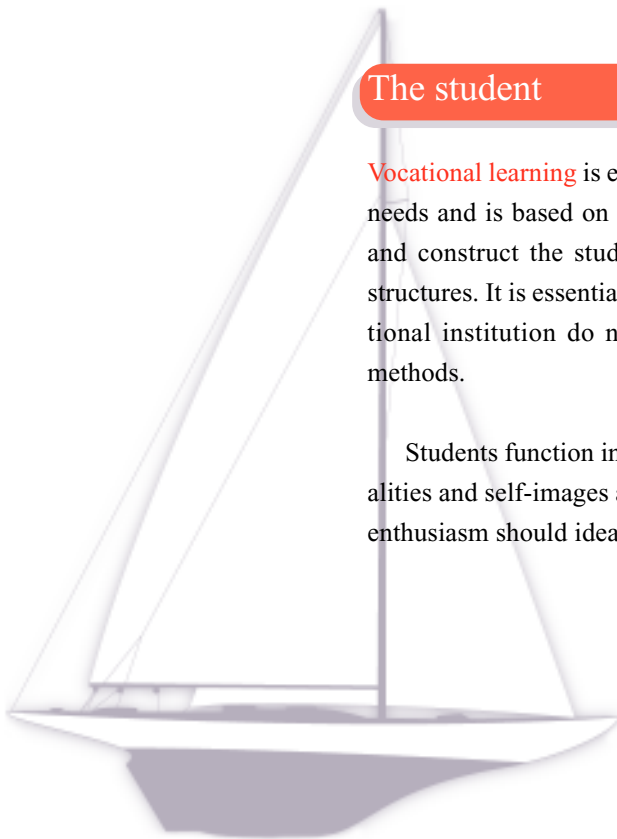
As a trainer and adviser, the instructor

- plans the training periods and organises the work to promote learning, together with others involved
- provides expert supervision and opportunities to observe the course of work processes
- gives support and feedback
- promotes an atmosphere of learning in the workplace
- promotes opportunities for on-the-job training in the company.

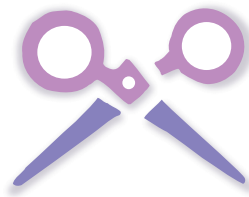
The student

Vocational learning is efficient when it stems from students' internal needs and is based on their own experiences. They select, analyse and construct the study material to match their own knowledge structures. It is essential to ensure that the workplace and the educational institution do not have conflicting ideas and supervising methods.

Students function in different roles. Young people's own personalities and self-images are also reflected in the workplace, and their enthusiasm should ideally benefit the whole working community.



The question of quality



On-the-job learning constitutes a considerable change in the learning culture, and its implementation demands time and patience from everyone involved. Assuring quality is pivotal to implementing the new system. The following questions are essential to the success of the reform and must be taken into account in its evaluation:

- Do the objectives of on-the-job learning comply with the curriculum, have they been defined sufficiently and has enough thought been given to whether matters would be best learnt at an institution or in the workplace? What is the most appropriate learning environment for each subject matter or issue?
- Do the workplaces fulfil the requirements for providing training: tools, other facilities, sufficient volume of production and services, competent staff?
- Are students provided with genuine opportunities to learn and consolidate their vocational skills in the workplace? Are the assignments in line with the objectives?
- Has the student been sufficiently prepared for the on-the-job learning period?
- Does the student have sufficient supervision in the workplace? Are the parties involved aware of the supervision of on-the-job learning? Does the co-operation between the teacher and the on-the-job instructor work?

● Is the assessment of on-the-job learning varied and encouraging? Is the student involved in the assessment and is feedback taken into account?

● Has training for teachers and on-the-job instructors been provided or agreed?

● Are the workplace's personnel aware of the significance of on-the-job learning and are they involved in its development?

● Are contracts made appropriately and are questions of responsibility clear?

● How are skill demonstrations implemented in workplaces in co-operation with working life?



Results from pilot projects



The Bridge experiments (Bridge from Vocational Education to Work, an ESF-funded project) tested new ways of connecting the workplace to the learning process. Those with two-year vocational schooling have been able to upgrade their education to a three-year vocational qualification through learning at a workplace. The project covers 60 educational institutions, 2,800 students and 2,000 teachers and workplace instructors.

In preliminary surveys of the project, employers said that the co-operation was useful and most of them were willing to develop it further and to arrange on-the-job learning together with the schools.

The participating students said that they had learned to co-operate, to take the initiative and to think independently, and had acquired self-confidence and the practical skills of the occupation and the industry. School theory lessons were seen to complement workplace learning. The students' problems were more connected to their overall life situation than to the instruction and learning. Some 70 per cent of the students immediately found employment.

These preliminary reports, although not yet conclusive, show very encouraging results and confirm that we can count on the future of school-workplace co-operation.





Vocational qualifications

from 1st August 2000

NATURAL RESOURCES SECTOR

- Vocational Qualification in Agriculture
- Vocational Qualification of Rural Entrepreneur
- Vocational Qualification in Fur Production
- Vocational Qualification in Horticulture, Gardener
- Vocational Qualification in Fishery
- Vocational Qualification in Forestry
- Vocational Qualification in Forestry, Forest Machine Operator
- Vocational Qualification in Natural and Forest Livelihoods

TECHNOLOGY AND TRANSPORT SECTOR

- Vocational Qualification in Shoemaking
- Vocational Qualification in Textiles
- Vocational Qualification in Clothing
- Vocational Qualification in Graphic Arts Technology
- Vocational Qualification in Image Processing
- Vocational Qualification in Metalwork and Machinery
- Vocational Qualification in Building Maintenance Technology
- Vocational Qualification in Vehicle Technology
- Vocational Qualification in Aircraft Mechanics
- Vocational Qualification in Logistics
- Vocational Qualification in Electrical Engineering
- Vocational Qualification in Construction
- Vocational Qualification in Land Surveying
- Vocational Qualification in Wood Processing
- Vocational Qualification in Boat-building
- Vocational Qualification in Upholstery
- Vocational Qualification in Surface Treatment Technology
- Vocational Qualification in Chemical Engineering
- Vocational Qualification in Laboratory Technology
- Vocational Qualification in the Paper Industry

Vocational Qualification in Food Production

Vocational Qualification in Seafaring

Vocational Qualification in Horology and Micromechanics

Vocational Qualification in Plastics and Rubber Technology

Vocational Qualification in Technical Design

ADMINISTRATION AND COMMERCE SECTOR

Vocational Qualification in Business and Administration

Vocational Qualification in Data Processing

HOTEL, CATERING AND HOME ECONOMICS SECTOR

Vocational Qualification in Tourism

Vocational Qualification in Catering

Vocational Qualification in Hotel and Restaurant Services

Vocational Qualification in Home Economics and Consumer Services

Vocational Qualification in Cleaning Services

HEALTH AND SOCIAL SERVICES SECTOR

Vocational Qualification in Social and Health Care

Vocational Qualification of Dental Laboratory Assistant

Vocational Qualification of Pharmaceutical Assistant

Vocational Qualification in Hairdressing

Vocational Qualification in Beauty Care

CULTURE SECTOR

Vocational Qualification in Crafts and Design, Artesaani

Vocational Qualification in Communications

Vocational Qualification of Dancer

Vocational Qualification of Piano Tuner

Vocational Qualification of Church Organist

Vocational Qualification of Dance Musician

LEISURE AND PHYSICAL EDUCATION SECTOR

Vocational Qualification in Youth and Leisure Instruction

Vocational Qualification in Children's Instruction

Vocational Qualification of Sports Instructor



On-the-job
learning