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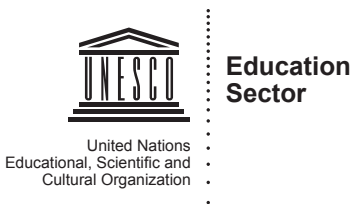


Case Study on Finnish TVET

A Resilient Model of Training During COVID-19

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A Resilient Model of Training During COVID-19

By Omnia Education Partnerships

Foreword

On 11 March 2020, the World Health Organization (WHO) announced that COVID-19 is a pandemic. On 25 March, the Finnish Government submitted to the Parliament a decree concerning the use of powers under the Emergency Powers Act relating to the restrictions on movement. After some consideration, a state of emergency was announced on 16 March and enforced on 18 March 2020. Movement restrictions were in force from 27 March to 14 April between the Region of Uusimaa and the rest of the country due to the high number of COVID-19 cases in the Capital Region. The state of emergency was in force in Finland for three months, during which all gatherings were restricted; restaurants and other service sector companies were closed; all non-acute health care postponed; and distance work recommended.

According to the Confederation of Finnish Industries' survey conducted in April 2020, the turnover had collapsed in Finnish companies, especially in the service industries and smaller businesses. More than half of the companies expressed that they needed financial state support. The Bank of Finland announced that the economic activity in Finland would decline sharply as a result of the COVID-19 pandemic, and the economy would shrink 7% in 2020.

When schools closed in March, the number of contaminations was on the rise. The emergency action plans in the education sector were decided under pressure for implementation according to different scenarios and any range of COVID-19 cases. Due to these precautions, the number of cases in Finland remained at a lower level than in many other countries.

This case study examines how technical and vocational education and training (TVET) was organized during the state of emergency, and it highlights some of the lessons learnt, which are still applicable today, as the number of COVID-19 cases are on the rise again.

The disruption accentuated the importance of flexibility within the education system. Finnish TVET, created as a hybrid solution combining school-based, work-based and online-based learning environments for the needs of 10 sectors, divided into 37 sub-sectors, remained responsive and functional throughout spring 2020. This flexibility was rooted in the daily decisions made by teachers in choosing the methodology and pedagogical approaches, which were decided on the basis of how best to serve the learners in a given situation. This also covered assessment, which is competency-based and unique for each student.

To urgently improve the resilience of education, Finland emphasizes the necessity to improve system-level flexibilities across all levels and all types of TVET. Alternative modes of delivery and hybrid learning opportunities must be fully applied in this case, as the one size fits all approach increases rigidity and redundancy of education and training. Flexible measures are key to improve resilience, also beyond the COVID-19 pandemic.

Omnia Education Partnerships, Finland, has compiled this case study with active contribution from key organizations in Finnish TVET. We would like to thank the following organizations for contributing to this study through interviews and by allowing access to survey results related to TVET during the COVID-19 crisis.

- The Ministry of Education and Culture, Finland
- Finnish National Agency for Education
- The Finnish Association for the Development of Vocational Education and Training
- Finnish Education Evaluation Centre
- The Trade Union for Education in Finland
- National Union of Vocational Students in Finland
- Finnish National Union for Students
- Technology Industries of Finland and their member companies Sandvik, Kemppi, Terrafame, Sulzer, Meyer Turku & Koneistamo Alm
- Omnia, The Joint Authority of Education in the Espoo Region

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LIST OF ACRONYMS

ISCED	International Standard Classification of Education
LMS	Learning Management System
OECD	Organisation for Economic Co-operation and Development
RPL	Recognition of Prior Learning
SME	Small and Medium-sized Enterprises
TVET	Technical and Vocational Education and Training

1. Overview of TVET in Finland

Finland's policy objective for Technical and Vocational Education and Training (TVET) is to guarantee equal educational opportunities for each individual student. The purpose of TVET is to increase and maintain the vocational skills of the population and support the development of a commerce and an industry that responds to competitiveness. TVET also supports lifelong learning and students' personal development including being a citizen. It aims to provide students with knowledge, skills and competencies that are necessary for further studies and that lead to employment opportunities. Finnish TVET qualifications are on levels 4 and 5 in the European Qualification Framework and all TVET qualifications provide access to tertiary studies.

In Finland, 72% of all secondary school students (ISCED 3) are enrolled in vocational education and training, whereas in OECD countries the corresponding figure is only 42%. The high number of adult students can explain the figure in Finland. In many other countries, TVET effectively involves training young people for the job market, which means that the average age of students is naturally low.¹ In Finland, many adults with tertiary degrees get TVET qualifications for professional up- and reskilling. Some of the most popular qualifications courses for employed adult students are management and leadership, product development and entrepreneurship. Regarding the gender aspect, 52% of TVET students were women in 2018.²

TVET is publicly funded from the state and municipal budgets. The average calculated cost of a TVET study year per student in Finland is 9 435 €. Studying is free of charge for the student, apart from tailored corporate training. Students that are completing an initial TVET qualification are entitled to a free meal and school transport subsidies. Full-time students can apply for student financial aid and loans.

The latest TVET reform was implemented in 2018 and had implications on the state funding for education providers. Prior to the reform, funding was allocated based on the number of students per study programme reported by TVET providers twice a year to the National Agency for Education. However, the new TVET funding system rewards education providers for their outcomes, efficiency and effectiveness. The focus has shifted on the completion of modules and qualifications (i.e. performance-based funding), employment or placement in further studies (i.e. effectiveness-based funding) and on the feedback collected from students and the employers. The amount of time spent on education is not relevant from the point of view of the funding structure. Initially, the proposed structure from 2022 onwards for TVET funding was 50% core, 35% performance-based and 15% effectiveness-based funding.

1 Ministry of Education and Culture. OECD indicators: *In Finland vocational education and training appeals to people of all ages.* (9 September 2020). <https://minedu.fi/en/-/oecd-indicators-in-finland-vocational-education-and-training-appeals-to-people-of-all-ages>

2 Official Statistics of Finland (OSF): *Vocational education.* (referred 15 September 2020). http://www.stat.fi/til/aop/index_en.html

Currently, the Ministry of Education and Culture is preparing a modification to this model indicating that 70% will be core funding, 20% performance-based, and 10% effectiveness-based funding. The TVET providers are responsible for their own budgets, meaning that they can autonomously decide how to use and allocate the granted funding to implement the TVET programmes agreed upon with the Ministry of Education and Culture in the granted training license.

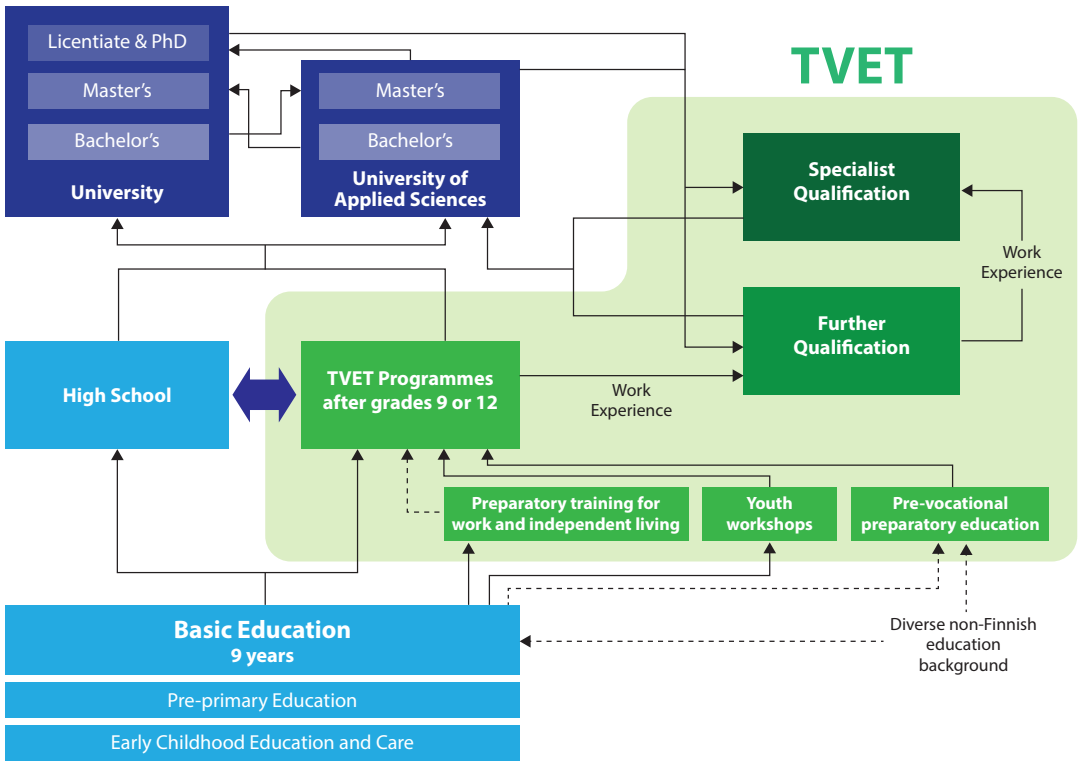
Aside from the allocated funding to all TVET providers from the national funding mechanism, providers can annually apply for additional development grants from the Finnish National Agency for Education. The grants are allocated annually on a competitive basis and serve to ensure that innovative ideas are piloted as part of teaching and learning in TVET. Typically, networks of four to ten TVET providers receive grants for developing a specific focus area within fields such as digitalisation, sustainable development within TVET, counselling and guidance practices, work-based learning and more. The results are always shared nationwide so that each TVET provider can benefit from the development projects.

Since the reform in 2018, prospective students have been able to apply to TVET programmes on an ongoing basis and begin their studies throughout the year. Furthermore, a joint national application has been organised every spring targeted at especially younger applicants who have completed nine years of basic education. The aim is to ensure that each young person has the chance to apply to upper secondary studies. Should a person need additional preparation prior to TVET studies, pre-TVET programs and youth workshops are available to offer support and alternative paths.

There are currently 152 TVET providers licensed by the Ministry of Education and Culture. The TVET providers in Finland are owned by municipalities, foundations or are privately owned non-profit organisations. As no tuition or other fees can be charged from students in initial TVET, public funding is provided on the same grounds, whether the TVET institution is public or private.

TVET providers and municipalities engage in joint anticipation activities to match programmes with the needs of the local ecosystem by taking into consideration regional growth prospects and employment opportunities. In Finland the trend has been leaning towards larger multisector TVET providers, often owned by municipalities or foundations. In 2018, the largest TVET provider had over 13 000 enrolled students, with 1350 students in average per provider. All providers offer training to both youth and adults. Strong employment prospects and flexible qualifications are among the reasons why 40–50% of the basic education graduates choose to enrol in TVET as their first choice of upper secondary studies.

Figure 1: Paths to and within the Finnish education system



Source: Omnia Education Partnerships

1.1 TVET reform

Many reforms have shaped the way TVET education is implemented in Finland, and the most recent was in 2018. This reform brought TVET under one legislation and introduced several elements for more flexibility within the system.

Figure 2: What changed in the 2018 TVET reform?

WHAT CHANGED IN VOCATIONAL EDUCATION AND TRAINING REFORM 2018

FOR EDUCATION PROVIDERS

ONE LEGISLATION

- Act on vocational education and training
 - more freedom and flexibility to meet competence needs
 - no boundaries between education for young people and adults

A SINGLE LICENCE TO PROVIDE EDUCATION

- one uniform licence to organise vocational examinations and provide education

A SINGLE FUNDING SYSTEM

- one uniform funding system for the provision of vocational education and training
- supports reducing discontinuation of studies, encourages taking care of every student
- shortens duration of studies and directs education to fields with a need for workforce
- more authority to make decisions concerning education

FUNDING WILL BE BASED ON QUALIFICATIONS AND EMPLOYMENT

- basic funding (50%) guarantees education in all fields and to all students
- 35 % of total funding on the basis of all completed qualifications and parts of qualifications
- 15 % of funding on the basis of employment and transfer to further studies

FEWER AND MORE BROAD-BASED QUALIFICATIONS

- a total of 164 vocational qualifications
- more optional studies
- specialisation within the qualification

FEWER STATUTORY PLANS

- plan for the implementation of competence assessment (part of the quality management system)
- personal competence development plan

FEWER ADMINISTRATIVE BODIES – LESS ADMINISTRATION

- about 40 national working life committees

TEACHERS' WORK WILL BE MORE DIVERSE

- shared expertise, more cooperation
- work is carried out in various learning environments and teachers go to workplaces to provide guidance
- guiding and coaching are emphasised in teachers' work

EDUCATION PROVIDERS WILL AWARD QUALIFICATIONS

- qualifications and certificates are awarded by the education provider
- less overlap in work

OBSTACLES FOR EDUCATION EXPORTS WILL BE DISMANTLED

- all vocational qualifications and parts of qualifications and education can be sold outside the EU and EEA

FOR THE STUDENT

MORE FLEXIBILITY IN STUDYING

- competence counts – the time used for the studies is not important
- each student progresses flexibly at his or her own pace

FEWER AND MORE BROAD-BASED QUALIFICATIONS

- a total of 164 vocational qualifications
- more optional studies
- specialisation within the qualification

FLEXIBLE ADMISSIONS THROUGHOUT THE YEAR

- continuous application process throughout the year is the principal channel
- joint application process for those who completed comprehensive school in the spring and those who have no upper secondary qualification

INDIVIDUAL STUDY PATH

- all students have a personal competence development plan, which also includes guidance and support services

COMPETENCE TO MEET THE NEEDS

- each student only studies areas in which he or she has no prior competence

MORE VERSATILE LEARNING ENVIRONMENTS

- studying flexibly at the workplace, at the education institution and increasingly also in virtual environments

MORE LEARNING AT WORKPLACES – THRESHOLD FOR FINDING EMPLOYMENT LOWERS

- apprenticeship (paid)
- work-based learning contract (unpaid)
- flexible combination of the above

A SINGLE WAY TO COMPLETE A QUALIFICATION – DEMONSTRATION OF SKILLS

- demonstrations of skills – vocational competence is demonstrated in practical work tasks mainly at workplaces

WORKING LIFE A STRONG PARTICIPANT IN THE ASSESSMENT OF VOCATIONAL COMPETENCE

- employees and the field of teaching together in competence-based qualifications

Source: Adapted from Ministry of Education and Culture of Finland (2017)

1.2 Modularised system for flexibility and individual learning paths

Finnish TVET is based on national qualification requirements (high-level learning outcomes-based curriculum), which is regularly updated by the Finnish National Agency for Education in collaboration with partners, employer organisations, trade unions, the Trade Union of Education and student unions. The TVET provider develops a programme based on the national-level curriculum and each qualification has compulsory and elective modules. It is possible to choose a module from other qualification courses to broaden the scope of the studies. Finnish qualifications courses also allow for local modules that are tailored to meet the needs of local companies. All competencies are acquired through a mix of school- and work-based learning. TVET learning in Finland is flexible and has a multiform learning environment.

The high degree of individualisation of students meant to maximising learning and the motivation of learners. A designated teacher takes into account both their students' prior learning, their specific needs and ways of acquiring learning when designing an individual competency development plan for the learner. This personal competency development plan is key to creating a mapping of the students' individual paths to acquire a qualification and it is adjusted on a regular basis.

Studies begin with a formal recognition of prior learning (RPL). The national-level learning outcomes for all qualifications form the basis for the RPL process. All learning, whether formal, informal or non-formal, are taken into account in this process. As a result, the completion time for qualifications vary between students and depends on their pre-acquired competencies. It is important that learning outcomes are validated, irrespective of how and where the competencies have been acquired. Requiring students to only learn the skills they are lacking make the Finnish TVET system efficient and minimizes redundancy.

There are no final or high-stake examinations in Finnish TVET. Competencies are assessed through skills demonstrations throughout the study programmes. In skills demonstrations students apply theory to practice, which usually takes place during work-based learning. However, adjustments have been made to this approach due to the limitations of the COVID-19 crisis.

The Finnish TVET qualifications learning system has a modular structure which supports the upskilling needs of individuals and industry, and it provides flexible opportunities for continuous learning. Working professionals can return to school to upskill themselves and choose to only follow modules that are relevant for their future employability and professional development.

1.3 Multiform learning environments

Finnish TVET is characterised by a blend of school-, work-, and online-based learning. TVET provides a broad set of skills required by employers and society, hence, it enforces strong employment prospects. The TVET learning paths support efficient transition to the labour market as, due to the requirement of work-based learning for all qualifications, no student graduates without work experience.

The role of TVET is also one that contributes to job creation, entrepreneurship skills and entrepreneurial thinking. Soft skills, a higher awareness of sustainable development and digital skills are all embedded into professional competency requirements. Through TVET, students are equipped with the digital skills they need in their everyday life and in the world of work. These digital solutions can vary within TVET and both include e-learning, learning games, simulations and virtual reality.

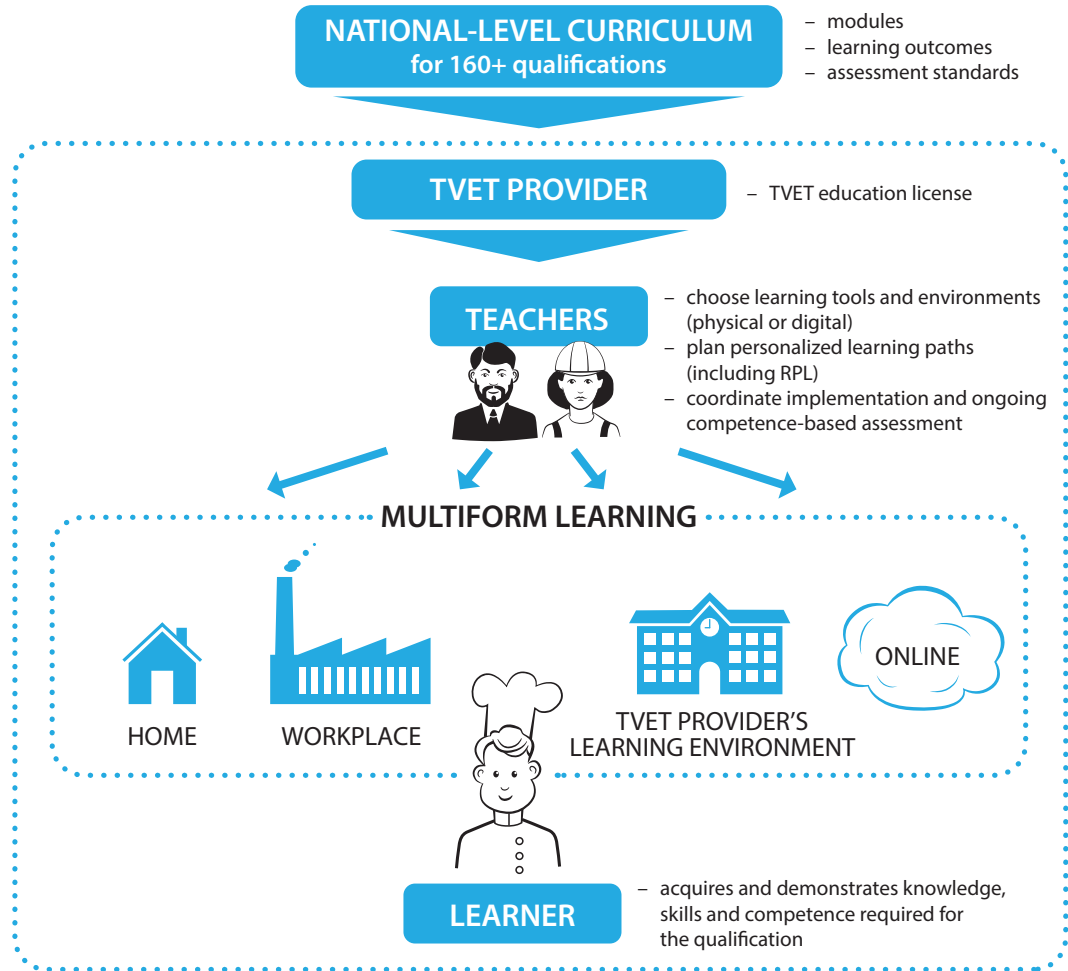
Many TVET providers have invested in developing versatile physical learning environments. As a result, Finnish TVET campuses include restaurants, shops, spas and other authentic working environments that are open to the public. As a result, school-based learning are to a high degree a real-life practical experience. Prior to work-based learning, teachers ensure that all students have the required level of competencies.

Guided and goal-oriented work-based learning is a core part of qualifications acquisition, as emphasized in the 2018 reform, and all TVET qualifications include work-based learning. The number and length of a work-based learning period is specific to a student's personal competency development plan and adapted to his/her individual learning needs. National regulations specify that this is compulsory, but they provide no exact number of weeks/months in which it has to be completed. In Finland, there exist two forms of work-based learning: training agreement (unpaid) and apprenticeship (paid). These can also vary in duration.

TVET providers typically have framework agreements with local companies for work-based learning to ensure competent workforce for the future. Work-based learning is based on a contract that includes learning goals and duration. The student, the teacher and the workplace mentor usually sign it. The unpaid training agreement can be changed into a paid apprenticeship agreement at any time if all parties agree and each student must have an appointed workplace mentor who supports the student at the workplace and takes part in the assessment. The teacher usually visits the company on a regular basis where the student is placed. During work-based learning, digital applications can also support teachers in communicating with their students

In Finland, full TVET qualification apprenticeship contracts are mainly applied to adult learners for upskilling or reskilling. In apprenticeships, most of the competencies are acquired at the workplace through practical assignments. The TVET provider's role is to support the learning process and ensure that the learning outcomes and overall competencies meet the national standards.

Figure 3: Multiform learning



Source: Omnia Education Partnerships

1.4 TVET teachers

TVET teachers are required to hold an appropriate degree from a university or university of applied sciences with at least three years of work experience in a field that is relevant to the position and the teachers' pedagogical studies. If a suitable university degree does not exist, it is expected that the teacher holds a specialist qualification and five years of relevant work experience. Typically, TVET teachers work in teams, which gives a high degree of autonomy in writing and implementing the syllabus based on the national-level curriculum. They also have contact on a regular basis with companies as they liaise with workplace mentors during students' work-based learning periods.

Teachers have several roles to play in Finnish TVET; they develop training material, plan the pedagogical approaches to students, participate in syllabus development, take part in development projects with other TVET providers' staff and industry, provide guidance to students when drafting the competency development plans, and assess their students' competencies.

Many sectors are changing rapidly due to digitalisation and robotics, consequently, TVET teachers need to develop their skills on an ongoing basis to stay up-to-date with industry requirements. Joint development projects with the industry and professional development programs financed by the TVET providers or the Finnish National Agency of Education are equally supporting the development of teachers' competencies.

2. TVET response to COVID-19 in Finland

In March 2020, Finland took emergency measures to prevent the spread of COVID-19. TVET institutions, along with other educational institutions, were closed. Face-to-face learning was disrupted and TVET institutions transitioned into distance learning.

It is worth noticing that the Finnish National Agency for Education has emphasised the importance of digital skills since 2007, when development project grants became available. Professional development in the area of digital skills has been widely accessible since 2010, at the same time TVET providers were encouraged to develop digitalisation strategies, including development goals for cloud-based services, device policy and staff training. This has facilitated the development of distance and online learning solutions in recent years. Consequently, prior to COVID-19, distance learning has been a common practice but not a significant part of Finnish TVET.

On 18 March 2020, education providers quickly transitioned into distance learning following the policy recommendations³ provided by the Finnish government:

- In-person learning and guidance should be arranged in alternative ways to the widest extent (distance learning, making use of digital and online solutions, independent learning).

In-practice teachers used many different forms of communication such as WhatsApp, LMS chat, skype, Teams, Zoom.

- Students can continue work-based learning if the workplace agrees to it and if the education provider and employer agree that the working environment is safe.

All TVET providers agreed to continue work-based learning; however, it was not always possible. Especially the service sector placements were at jeopardy with the sanitary requirements and modifications were therefore made to the students' competence development plans.

- Education providers should ensure the progress of studies especially for students who are close to the graduation phase.

There were some delays especially in the case of discontinued work-based learning. If no other option was feasible, teachers arranged for skills demonstrations at the TVET providers' premises in order to facilitate graduation.

³ Government policy for universities, universities of applied sciences, general upper secondary education, vocational education, liberal education, basic art education, primary and lower secondary education and early childhood education and care during the coronavirus pandemic. (16 March 2020)

- Face-to-face education can be arranged if no other alternative is possible (for instance for students with special needs), but the safety of students and staff must be ensured with proper measures concerning hygiene and social distancing.

Small groups met and used campus facilities, especially to facilitate trainings for students with special needs.

- Education providers must take into account students who cannot independently use digital learning environments or online connections.

On-campus or adjacent outdoor premises were used for meeting and teaching students who needed extra support.

- TVET providers should maintain student welfare services in some of their premises.

Provisions were made to offer welfare services either on campus by appointment or by phone.

- Education providers must provide sufficient instructions for staff and students.

Reaching all students proved to be a challenge. Instructions were available through the LMS, on the TVET providers' website and by email to students.

During the crisis, both the Ministry of Education and Culture and The Finnish National Agency for Education supported education providers with information and an advisory service: a COVID-19 website was set up with instructions for different levels of education as well as an email address for education providers for contact in case they need further advice. The National Agency for Education also provided support by curating and sharing material on how to plan and implement distance learning, including information on national development networks, communities and open educational resources. Teachers were encouraged to share content through the newly published online library with open educational resources. In addition, some TVET providers equipped students with computers and mobile learning devices when deemed necessary.

In mid-May, Finland adopted a hybrid strategy to manage the COVID-19 crisis and began to lift some of the restrictions that we made earlier in the spring. On 14 May 2020, TVET providers were allowed to gradually return to face-to-face learning. However, the government strongly recommended distance learning until the end of the school year. All TVET providers could independently decide whether to open campuses for face-to-face teaching, while adhering to the instructions laid down by the Regional State Administrative Agencies. As provisions restricting face-to-face teaching were dismantled, the following instructions⁴ were issued by the Ministry of Education and Culture and the Finnish Institute for Health and Welfare to education providers:

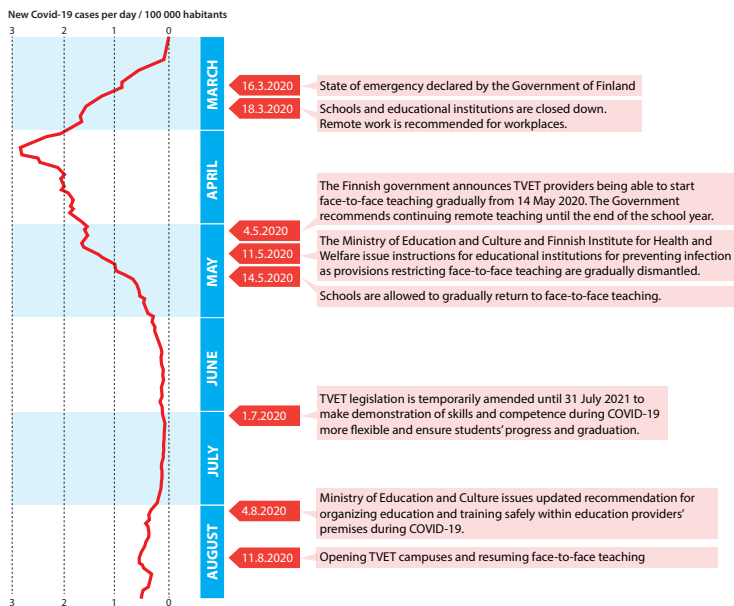
- Persons with any symptoms of illness should not enter the premises of an educational institution

⁴ Finnish Institute for Health and Welfare and the Ministry of Education and Culture (11 May 2020, updated on 4 August 2020).

- Risk groups⁵ are not recommended to take part in contact teaching
- Unnecessary contact must be avoided (no large face-to-face events such as graduation ceremonies, student canteens can be used in turns, distance between people should be 1-2 metres in all spaces)
- Information material on correct hygiene practices must be distributed to those working and studying at educational institutions
- Educational institutions must comply with the cleaning instructions of the Finnish Institute of Occupational Health
- In case a COVID-19 case is diagnosed, those exposed must be tracked down and quarantined for 14 days, and the person infected must stay away from the education institution for 14 days

In August 2020, TVET institutions opened their campuses again. In principle, teaching and work-based learning were to be arranged in person, but education providers were closely following the situation and preparing for a possible shift to distance learning if the COVID-19 situation required it.

Figure 4: Timeline of government actions during COVID-19



Source: Omnia Education Partnerships (calculations based on COVID-19 update from the Finnish Institute for Health and Welfare, accessed on 15 October 2020)

⁵ Risk groups were defined by the Finnish Institute for Health and Welfare and include persons who have pre-existing conditions that significantly impair the functioning of the lungs, heart or immune system.

2.1 How TVET providers responded to crisis

The COVID-19 crisis forced TVET providers to close their premises and shift to distance learning in an extremely tight schedule. However, overall TVET providers were successful in implementing this transition. They have reported that staff and students adopted the increased use of digital and online learning solutions very quickly. Teachers and staff have also supported each other during the crisis through sharing advice and materials on online learning.⁶ In general, the transition to distance learning was easier for some TVET providers than others depending on how much they used digital solutions prior to COVID-19. In Finland, TVET is arranged in diverse learning environments, and the education provider decides independently to which extent it wishes to provide face-to-face or distance learning⁶.

2.2 Skills demonstrations and assessment during COVID-19

In Finnish TVET, students are assessed based on skills and competencies they demonstrate in practical tasks in authentic work situations (skills demonstration). A teacher with a working life representative normally carries out assessment. However, Finnish TVET legislation also provides flexibility in regards to skills demonstration and assessment. If justifiable, competencies can be demonstrated in real working life settings, which are often adjacent to the campuses of TVET providers, including teaching farms, on-campus restaurants and spas that are open to the public. In special cases, two TVET teachers instead of a teacher and a working life representative can carry out assessments.

To make the demonstration of skills and competencies even more flexible and to ensure the progress and graduation for students during COVID-19, TVET legislation has been temporarily amended until 31 July 2021. The amended legislation allows students to demonstrate their competency by performing practical tasks that are similar to authentic work situations and processes if the competencies cannot be demonstrated in authentic work situations. For instance, landscape and design students can plan and implement work on campus grounds or healthcare students can organize a pop-up campaign to promote healthy living.

The Finnish National Agency for Education has emphasized that even during COVID-19 the goal is to demonstrate competencies in authentic work situations, and assessment should be completed with a working life representative. Education providers are therefore encouraged to use the flexibility of the legislation only when it cannot be avoided during COVID-19.

⁶ The Finnish Association for the Development of Vocational Education and Training AMKE. *Survey on the impact of COVID-19 on TVET*. (2020). https://www.amke.fi/media/julkaisuaja/2020/jatkokyselyn-tuloksien-esittely_pitka-versio2.pdf

To help with the transition, TVET providers have proved to take the following actions:

- Setting up additional remote teaching and IT support services for teachers and staff
- Providing training for staff and students in using digital communication and learning tools (such as Teams)
- Efficient and constant communication about the crisis and new learning arrangements with staff and students

In mid-May, TVET providers were allowed to begin returning to face-to-face learning given that they complied with the safety instructions provided by the government officials. As the government's recommendation was to continue distance learning until the end of the school year, TVET providers followed the recommendation and maintained distance learning for the most part. However, some additional face-to-face teaching took place as of May. Throughout the period, it has been possible to use school premises for face-to-face teaching in small groups (e.g. with learners who need special support) and for arranging skills demonstrations for graduating students if necessary.

2.2.1 Reaching and supporting students

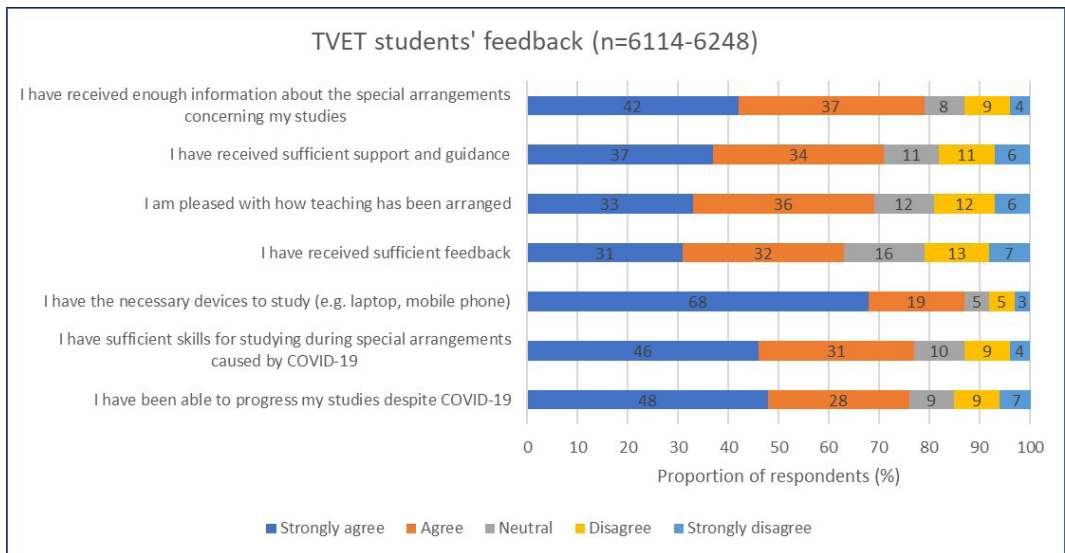
In general, TVET providers have been able to reach students during the time of distance learning and maintain regular contact with them.⁶

- 90% of TVET providers say that 90% of students have been reached during COVID-19
- 50% of TVET providers say that there has been daily contact, 43% of TVET providers have been in touch with students twice a week, and the last 7% on a more irregular basis

TVET providers have estimated that the majority of students have coped well with distance learning⁶. Most students have been satisfied with the support and guidance during COVID-19 and think that teaching has been arranged adequately. However, based on the students' responses (Figure 4) some key challenges seem to have been the lack of feedback and adequate support received. The fact that 18% of the students found that teaching was not arranged adequately, 8% did not have sufficient digital devices for learning, and 13% found that their skills were not adequate to progress in their studies, indicate that there is some room for improvement.

Distance learning has been more challenging for those students who need special support, and since autumn 2020, TVET providers and teachers are calling for additional support services for especially students with special needs and limited language skills.

Figure 5: TVET students' feedback on contact, support and teaching during COVID-19



Data source: The Finnish Education Evaluation Centre (KARVI)

According to a survey conducted by the Trade Union of Education in Finland, Finnish teachers believe that distance learning has had both positive and negative effects on students. For those who have a difficult family situation or are lacking self-management skills, attending school physically is very important. On the other hand, one out of six teachers believe that a large part of students have had a positive experience with distance learning, especially learners that have difficulties concentrating, sensory defensiveness or are suffering from school anxiety or bullying.⁷

As distance learning has been challenging for many students, the Finnish National Agency for Education has recommended that TVET providers pay special attention to students who need special support, have limited language skills or deal with other challenges that make studying more difficult. This also includes students who have been difficult to reach during COVID-19. As many graduating students have been concerned about employment, TVET providers have supported with job seeking and applications to further studies.

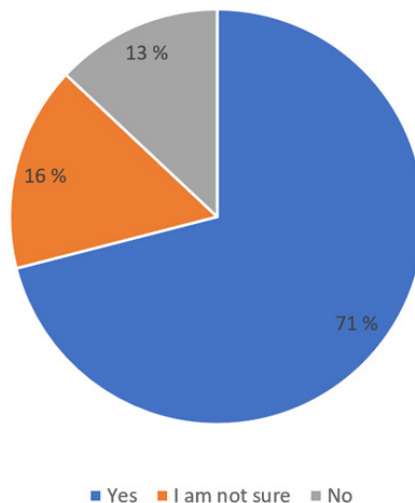
⁷ The Trade Union of Education in Finland. *Teaching during COVID-19 – a summary of survey results conducted by the Trade Union of Education in Finland*. (23 April 2020). <https://www.slideshare.net/oajry/opetus-koronan-aikaan-tiivistelm-oajin-kyselyn-tuloksista-232473138>

2.2.2 Ensuring graduation

Despite the crisis, TVET institutions have been able to ensure timely graduation for the majority of students. According to a survey⁸ conducted in June 2020 by the Finnish Education Evaluation Centre in cooperation with the National Union of Vocational Students in Finland and the Finnish National Union for Students, a clear majority of TVET students have proclaimed that they will graduate on time (Figure 5). In the case of graduation delays, TVET providers have estimated that the time of delay is typically between one to three months.⁶

Figure 6: Graduation in spring 2020

I will graduate on time (n = 1445)



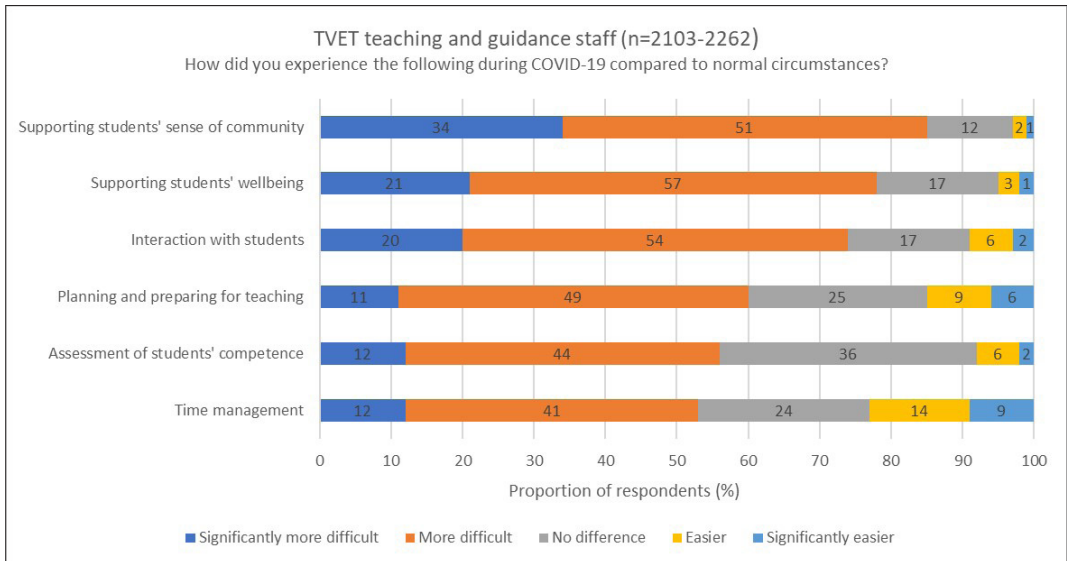
Data source: The Finnish Education Evaluation Centre

2.3 Teaching during COVID-19

Teachers have been able to adapt to the situation and perform extremely well considering the circumstances. However, according to teaching and guiding staff, supporting the community spirit, the wellbeing of the students as well as interactions with them have been shown to be especially difficult during COVID-19 (Figure 7).

⁸ Finnish Education Evaluation Centre. *Impact of exceptional teaching arrangements on equality and equal opportunities*. (17 June 2020). https://karvi.fi/app/uploads/2020/07/Poikkeuksellisten_opetusjarjestelyjen_vaiikutukset_ensimmaiset_tulokset_korjattu-10.7.pdf

Figure 7: Teacher and guidance staff feedback on challenges during COVID-19

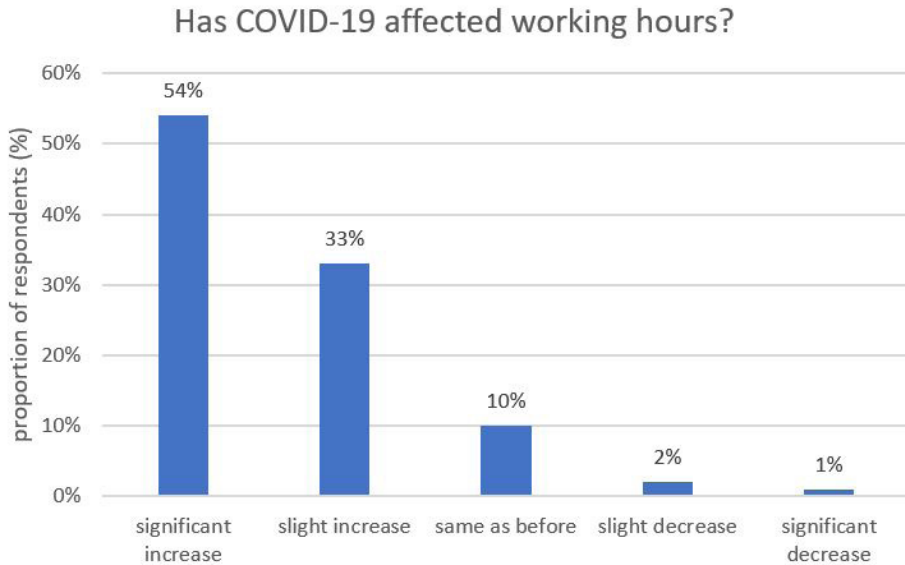


Data source: The Finnish Education Evaluation Centre

In a survey conducted by The Trade Union of Education in Finland in the spring of 2020, 28% of vocational teachers reported having provided synchronous online teaching during COVID-19.⁷ It should be noted here that the lack of appropriate devices might have hindered some of the synchronous teaching. Typically, students received instructions on a daily basis or separately for each topic. The learning was also more focused on theory when equipment or facilities for practical tasks were unavailable.

The successful implementation of distance learning seems to have taken a toll on teachers. More time spent on planning, adopting new digital tools, increased amount of written individual feedback for each student and continuous communication have all increased the teachers' workload: 54% of TVET teachers have reported a significant increase, and 33% a slight increase in their workload (Figure 8).

Figure 8: Teachers workload during COVID-19



Data source: The Trade Union of Education in Finland

In general, Finnish teachers have evaluated their digital and pedagogical skills required in remote teaching as sufficient, and a majority of teachers were already familiar with the devices and software used for distance learning.⁷ Virtual learning environments have also been widely used in Finland under normal circumstances. As mentioned earlier, in recent years, efforts at national level have been made to improve the digital competencies of TVET institutions and teachers. Many TVET providers report that they have recently invested in developing teachers' digital skills and digital learning environments, which has been a significant advantage during the crisis. However, TVET providers have commented that there is a need for further training of teachers regarding online pedagogy as well as creating common guidelines for the use of online learning solutions.⁶

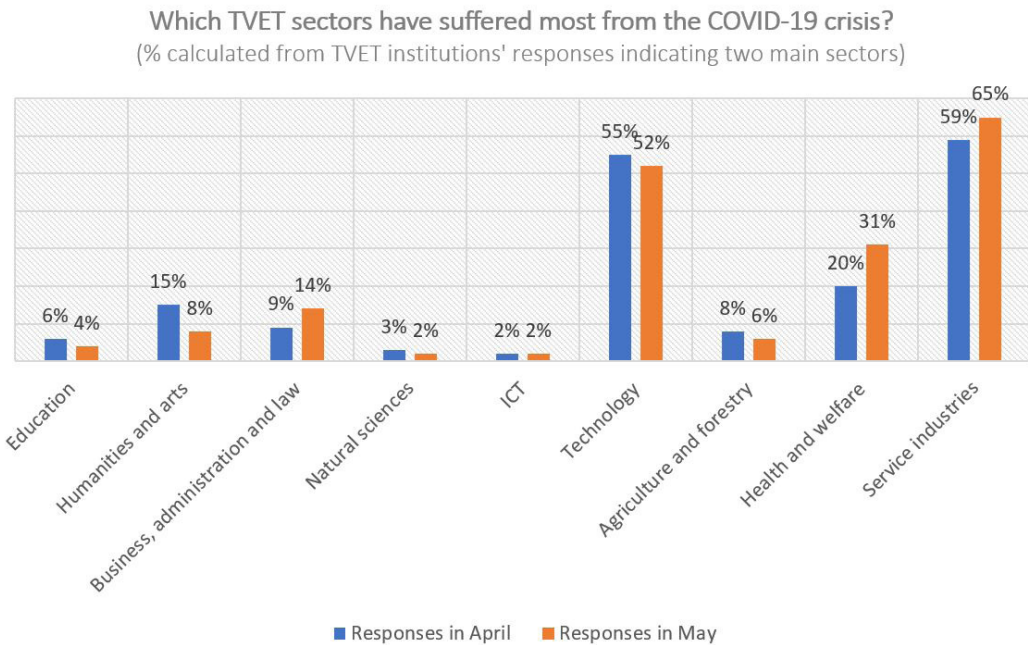
2.4 Work-based learning and apprenticeships during COVID-19

During COVID-19, TVET students have been able to continue their work-based learning if the education provider and the employer agreed that the working environment is safe for the student. 35% of the TVET students who responded to a survey⁸ on the impact of COVID-19

reported being in work-based learning between March and May 2020. Of those 35% students, work-based learning was possible for 80% while 20% of students reported that work-based learning was suspended.

Whether students were able to continue their work-based learning greatly depends on the sector. For the most part, students whose work-based learning was disrupted, were able to continue their studies in alternative ways.⁶

Figure 9: Which TVET sectors have suffered most from the COVID-19 crisis?



Data source: The Finnish Association for the Development of Vocational Education and Training AMKE

2.4.1 Companies' perspective

For the purposes of this case study, six companies⁹ from the technology sector were interviewed about their experiences in implementing work-based learning during COVID-19. All except one company were able to keep students in work-based learning. To ensure safety of staff and students, companies had procedures for social distancing and proper hygiene. Though visitors were excluded to ensure that production was taking place, in some cases, a teacher could visit the premises in person. One company was also prepared to provide COVID-19 tests for students and teachers if deemed necessary.

9 Sandvik, Kemppe, Terrafame, Sulzer, Meyer Turku, Koneistamo Alm

Some of the companies took in new apprentices in the midst of the crisis, which required adjustments to the normal learning processes. For instance, large groups of students had to be split into smaller groups, and a virtual orientation week was designed and implemented to avoid unnecessary contact.

In Finland, the student's competency is assessed by a teacher and a workplace representative. In the interviewed companies, TVET teachers would typically assess the students' skills and competency remotely. For instance, the workplace mentor could send a live video to the teacher showing the student performing practical tasks, and assessment discussions were organised online. Some companies also allowed teachers to visit their students in person.

Not all the companies knew if they would be able to continue work-based learning during autumn. This greatly depended on whether there would be (and possibly continue to be) a drop in the company's orders and production. However, all companies expressed a wish to uphold work-based learning and indicated that TVET students are an important part of their recruiting process.

2.5 Institutional-level example: Omnia, the Joint Authority of Education in the Espoo Region

Omnia, the Joint Authority of Education in the Espoo Region, is a multidisciplinary education and training provider and a regional development centre founded in 1982. Omnia is owned by three metropolitan municipalities and has a turnover in the range of 85 million euros. Omnia cooperates with cities, chambers of commerce, companies and entrepreneurs to support regional growth, and it partners with the basic education sector and universities to form a strong educational ecosystem. Omnia is also a UNEVOC Centre of Excellence and actively involved in the UNESCO-UNEVOC Network.

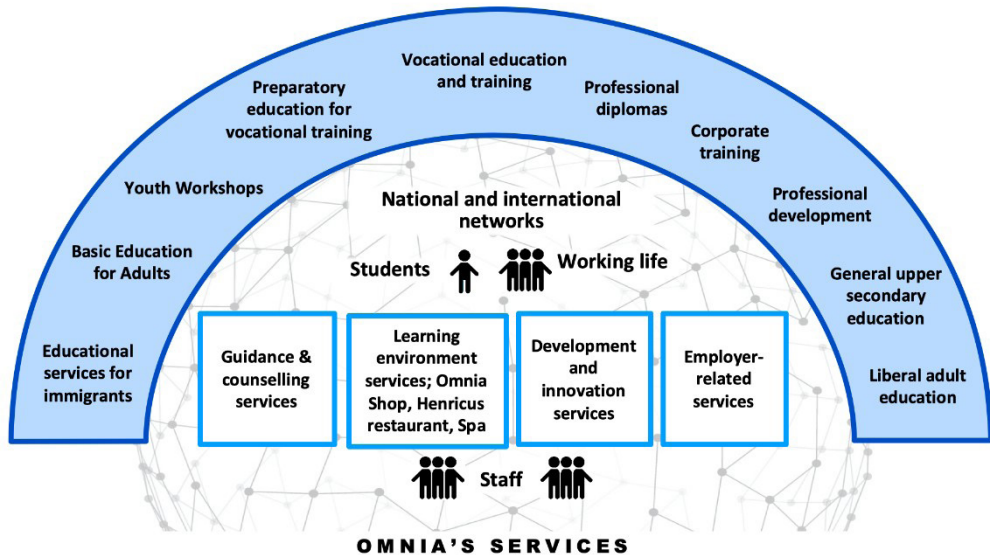
In Finland, TVET providers have a large degree of autonomy, which is reflected in the partnership agreements for work-based learning and innovation. Omnia currently has agreements with over 3000 organisations in the greater Helsinki area out of which most are SMEs.

Omnia has:

- 7000 students studying for a vocational qualification
- 1500 general upper secondary students
- 340 young people in youth workshops
- 230 students in basic education
- 1600 attending professional development and further vocational training

- 22 500 students attending liberal adult education courses (approx. 3000 courses)
- 350 in preparatory education for vocational training
- 900 staff members including 600+ full-time teachers

Figure 10: Omnia's services



Source: Omnia Education Partnerships

2.5.1 COVID-19 disruption at Omnia

Like all TVET providers in Finland, Omnia transitioned to distance learning on 18 March 2020. The primary goal at that time was to ensure that learning continues for those graduating in the spring, so that students can have a transition to either employment or further studies after graduation.

The official guidelines issued by the government allowed the use of the TVET providers' premises if necessary. Hence, Omnia maintained the possibility of using its learning environments for skills demonstrations and face-to-face teaching in small groups, in the case that distance learning was not possible (e.g. with learners needing special support). Student welfare services and guidance were mainly provided remotely, and if necessary, in-person by appointment.

2.5.2 Supporting learners

During April, Omnia gathered feedback from students to see how remote learning and guidance have been working. Students were generally pleased with distance learning and guidance provided by the Omnia staff, and they were overall satisfied with the amount of teaching. On average, students had received 1-3 hours of synchronous teaching and 1-3 hours of independent working on a daily basis.

Teachers received positive feedback from students for keeping in touch and supporting them throughout the process, as well as for their interesting approaches to implementing virtual classes and high-quality content. Many students expressed that distance learning worked well for them and that access was not an issue. The tools used for distance learning typically included Microsoft Teams and Collaborate.

However, students also showed concern about graduation and the progress of their studies, and they reported some difficulties in work-based learning and skills demonstrations.

Staying motivated was also challenging for some of the students. This was due to a large amount of assignments, unclear instructions and the levels of difficulty that some assignments had. This seemed to cause challenges for some students, especially as only remote support was available. Distance learning also showed to be more of a challenge for students with Finnish as their second language.

Based on the student feedback, Omnia took the following actions to improve distance learning:

- Increased face-to-face learning
- Made competency demonstrations possible within the school premises
- Teachers updated each student on progress of their studies
- Teachers who had little or no experience with virtual teaching were provided guidance and were obliged to organise virtual classes

Student and staff feedback suggested the need for common guidelines on digital tools and producing online learning material. It was decided that distance learning support services for teachers as well as for students had to be developed further.

2.5.3 Staff feedback on distance learning

- 81.4% indicated that they had been able to carry out their job well/very well
- 92.7% reported that internal communication about the shift to remote working was sufficient
- 78.8% reported feeling that the transition to remote teaching and guidance had gone well/very well

- 77.15% reported feeling that the transition to remote working had been managed and organised well/very well

According to staff:

- The shift to remote work was seen as a solution that increases safety
- Instructions were provided for remote working, ergonomics, setting boundaries for work, pedagogy and using different software
- Support had been provided by IT support services, distance learning and guidance support teams, colleagues, supervisors and management
- Working had been more peaceful in a home environment; this had provided more flexibility in planning the workdays
- Maintaining physical health had been easier because of increased leisure time (no commuting)

Areas of development arising from the survey:

- Increased amount of work caused by the need to create new teaching materials, taking on new teaching methods and more careful planning of the day
- Mixing of work and leisure time, students' increased need for guidance throughout the day, need for scheduling breaks
- Lack of breaks, increased number of meetings and contacts
- Ergonomics, adjustable work equipment (chairs, desks, screens), computer accessories, lack of activity breaks, need of guidance on ergonomics
- Increased distractions, caused mostly by other family members working in the same space
- The need for more information on ergonomics and hygiene measures if using school premises

2.5.4 Work-based learning

Certain sectors have faced more challenges in work-based learning than others. Skills demonstrations have also been organised within the Omnia facilities.

Teachers were active in communicating with workplaces and participated in assessment discussions with students and workplace mentors either at the workplace or remotely. Trainings for workplace mentors were organised online, which had received positive feedback.

Apprenticeships have been affected by the COVID-19 crisis. From 1 January to 31 March 2020, Omnia had registered 215 new apprenticeship agreements against 62 agreements from 1 April to 30 June 2020. During this time, 74 apprenticeship agreements were also discontinued. In some cases, it was possible to convert some apprenticeship agreements to a school-based study programmes, meaning that the students were able to continue their studies without interruption.

3. Returning to on-campus teaching in August 2020

Educational institutions resumed face-to-face teaching in August 2020 with additional safety measures. Education providers are following the COVID-19 situation closely and have prepared for the possibility of transitioning to distance learning. TVET providers have the authority to decide independently whether they use distance learning, and this does not require a decision by the authority of infectious diseases.

Education providers are required to prepare guidelines for when and how they would adopt special arrangements for remote teaching, support to learning and other necessary services. These are documented in the education provider's annual plan and the education institutions' student welfare plan. Education providers have also been advised to consider the following when arranging education and training in autumn 2020¹⁰:

- Availability and accessibility of equipment, data connection and material is established
- Plans are made for organizing school meals in different situations
- Institutions' student welfare groups plan for how to arrange student welfare services and check that the crisis management plans are up to date
- Plans are made on how to support learning if schools are forced to enter distance learning mode
- Annual plans are updated with a plan of action for switching to special teaching arrangements and alternating contact and distance teaching (including assessment practices)
- Special attention is paid to communication between schools and homes/parents.
- Division of tasks and responsibilities for staff are outlined and attention is paid to staff welfare

Currently, face-to-face teaching has resumed with extra safety measures such as: disinfectant posts at entrances, limited number of students in cafeterias and other communal spaces, prolonged use of premises between 8 a.m. and 8 p.m. and introducing shifts in students' schedules.

Students generally start their studies on campus on their first year, meaning that in order to decrease the overall number of students using the premises, second and third-year students need to be primarily either completing work-based learning or completing modules through e-learning. With some sectors expecting difficulties with the rising number of COVID-19 cases, it remains to be seen how work-based learning can be arranged.

¹⁰ The Finnish National Agency for Education. *New school year began in contact teaching*. (13 August 2020). <https://www.oph.fi/en/news/2020/new-school-year-began-contact-teaching>

In general, the private sector stresses the importance of partnerships with TVET providers and companies. Interviewed for this case study, they stated that they want to continue taking in students for work-based learning but were awaiting instructions on the company-level. One company was even willing to have the students and teachers tested for COVID-19 at their expense to allow their entrance to the premises.

With an increasing number of companies announcing layoffs, there is bound to be a spillover effect on TVET: decreasing need for personnel, increasing demand for reskilling and bridging to new careers, increasing demand for entrepreneurship training and support in order to create jobs, an urgency for innovation and developing new business models, as well as digitalization of services.

Finnish TVET has a history of being proactive in partnering with local authorities and companies for reskilling people in times of layoffs and unemployment. The COVID-19 crisis has already proven that digital skills are a must for all sectors. Reorganising work and ensuring effective communication requires new types of management and leadership skills. By offering relevant training, TVET can play an important role in mitigating a skills shortage and minimizing the shock effect of the crisis.

4. Building resilience in TVET: lessons learnt

Taking into account that more than 90% of the world's student population were affected by school closures during the COVID-19 crisis, it is important to draw on the lessons learnt and identify best practices of countries to improve the resilience of education systems worldwide. One of the key messages of the UN Secretary-General's Policy Brief¹¹ is to "reimagine education" and "build back resilience", and while doing so, ensure that education systems are more flexible, equitable and inclusive. According to the experiences of Finland, these conclusions are also in line with the aiming for quality in education and training. In the perspective of Finland, quality, inclusion and resilience are inseparable.

Key elements of the TVET system in Finland that have helped adapt to the challenges of COVID-19:

- Personal competency development plan for each student
- High degree of flexibility
- TVET as a mixture of school-based, work-based and online-based learning
- Modular structure of studies for reskilling and upskilling, including modular-based TVET qualifications
- Competency-based approach and recognition measures: it is learning and acquired knowledge, skills and competencies that count, not a study credit per se
- Assessment is continuous, no standardized national examinations

COVID-19 has undoubtedly challenged the Finnish TVET ecosystem in an unprecedented way. Given the autonomy of the TVET providers and their staff, the impact has been less disruptive than in many other countries. Certain system-level characteristics of Finnish TVET work in favour of resilience and in mitigating disruption.

Ongoing intake and graduation: Since the 2018 reform, there are no standardised final examinations or fixed starting dates for studies. Delays in initial TVET graduation were anticipated to affect less than 20% of students, with delays from one to three months. Given the circumstances, this is not considered a major delay.

The Finnish TVET system is also an important channel for upskilling and reskilling adults. The ongoing intake opens possibilities to enter into TVET programs bridging into new career prospects for those who have lost their jobs or been laid off for indefinite periods.

¹¹ United Nations. *Secretary-General's Policy Brief on Education and COVID-19*. (August 2020). https://www.un.org/sites/un2.un.org/files/sg_policy_brief_covid-19_and_education_august_2020.pdf

Possibility of making local adjustments: COVID-19 affected different parts of the country with diverse levels of disruption. TVET providers had the autonomy to adjust to local needs and work closely with the companies in their area to tailor actions based on the level of disruption. In some sectors and locations, work-based learning and apprenticeships continued as initially planned while amendments to students' learning plans were inevitable in others. The high level of autonomy allowed for an immediate response to the new reality and modes of learning and assessment.

Multiform learning environments: Using an array of learning environments is commonplace in Finnish TVET. All TVET providers have learning management systems and many have existing e-learning courses, so the required elements during the closure of TVET premises were in place. According to the COVID-19 impact surveys⁸, 79% of students felt that they received an adequate level of support to making progress during their studies in the spring of 2020. However, given some of the students' responses regarding insufficiency of support, it is clear that there is still room for improvement.

Flexibility of studies and personalised learning, including the sequencing of TVET modules: As a result of the RPL process, each student has a personal competency development plan that indicates which modules the student will be completing to reach the skills and competencies required for the qualification. The plan also indicates how and where the learning will happen. Due to the COVID-19 restrictions, it was possible to amend the competency development plans by replacing modules or parts of modules that could not be completed.

Investing in the professional development of teachers: In Finland, teachers have a long educational background and are highly respected professionals. This also applies to TVET teachers. The initial vocational teacher education is provided by the Universities of Applied Sciences, and teachers take actively part in in-service training, which is provided by a range of actors and funded by the Finnish National Agency for Education. In recent years, digital skills have been one of the focus areas of the Finnish National Agency for Education professional development. Many TVET providers have allocated internal resources to support the teachers' competency development in such as building e-learning courses, using learning management systems and supporting students during work-based learning through a multitude of social media and communication applications. Having taken these measures in the past 10 years ensured a swift transition to online learning.

5. An ongoing challenge to education and training

To conclude, on a system-level, Finland has been able to design a highly resilient structure for TVET. With the changes in legislation, there is enough flexibility to ensure that TVET continues even if the COVID-19 situation deteriorates. On the other hand, more action to decrease stress and fatigue among teachers is needed, as well as allocating more time for student communication and support.

Olli-Pekka Heinonen, Director of the Finnish National Agency for Education, believes that the operating environment in education and training has permanently changed: The future is less predictable, increasing the need for communicating and learning from one another. Now more than ever, the strengths and the weaknesses in education systems are visible and the COVID-19 crisis has only accelerated this development. The gaps between learners have widened as those who have strong learning skills and a supportive home environment have coped better with the changes. Distance support has not been able to reach all of those in need, which has reflected on the learning outcomes.

Overall, the Finnish education system has ranked well in the future proof category¹², which indicates the ability to react to changes. However, it is also impossible to make large-scale changes during a crisis: if digital skills are not up-to-date and digital tools not commonplace, launching them during the COVID-19 crisis is a challenge. Finland has invested in training teachers and students for digital competencies prior to the pandemic, which has translated into a smooth transition to distance teaching and learning. However, the diversity and vastness of digital tools, although an opportunity, can also cause challenges for students: there is a need to remain critical about what digital solutions can support learning and build resilience on a system-level, by identifying innovative solutions that have emerged during this crisis. How can we build a sense of community and support for those who need it the most? Education and training need to be rapidly transformed into a service beyond the brick and mortar of education providers' facilities, highlighted Director Heinonen.

More information about the TVET system in Finland:

- Ministry of Education and Culture: <https://minedu.fi/en/vocational-education-and-training>
- Finnish National Agency for Education (EDUFI): <https://www.oph.fi/en/education-system/finnish-vocational-education-and-training>
- Brochure "Finnish VET in a Nutshell": <https://www.oph.fi/en/statistics-and-publications/publications/finnish-vet-nutshell>

¹² The Economist. *Finland leads for the second year globally in providing future-skills education for youth, according to the 2019 Worldwide Educating for the Future Index (WEFFI)*. (14 January 2020). <https://eiuperspectives.economist.com/talent-education/finland-leads-second-year-globally-providing-future-skills-education-youth-according-2019-worldwide>



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Education
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Case Study on Finnish TVET

A Resilient Model of Training During COVID-19

This case study examines how technical and vocational education and training (TVET) was organized during the state of emergency caused by the COVID-19 pandemic in Finland. The disruption accentuated the importance of flexibility within the education system to make it resilient. Finnish TVET, created as a hybrid solution combining school-based, work-based and online-based learning environments, remained responsive and functional throughout the difficult time in spring 2020.

To urgently improve the resilience of education, this case study emphasizes the necessity to improve system-level flexibilities across all levels and all types of TVET, including alternative modes of delivery and hybrid learning opportunities, as the one size fits all approach increases rigidity and redundancy of education and training. Flexible measures are key to improve resilience, also beyond the COVID-19 pandemic.

