



COMPETE EGYPT

D2.2: COMPARATIVE STUDY OF FINNISH AND EGYPTIAN VET CURRICULA

31 August 2023





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Introduction

The Compete Egypt project aims to increase the capacities of Egyptian VET institutions to develop competence-based VET in dialogue with the labour market, focusing on the following issues:

- identifying development needs at the school and curriculum level by benchmarking the Finnish VET system.
- developing a framework for quality management at the school level.
- upskilling and reskilling teachers & managers to be able to provide high-quality VET and to develop a competence-based curriculum.
- improving the employability of students by integrating entrepreneurship into the curriculum and developing an entrepreneurship training model.
- improving the career guidance system with anticipation of labour market needs.

Project partners

- Omnia Education Partnerships Ltd (OEP), Finland (Project coordinator)
- Ta’heel for VET Skills Excellence (Ta’heel), Egypt
- Ministry of Education and Technical Education, Department of Applied Technology Schools Unit (MoETE), Egypt

This comparative study aims to examine the Finnish and Egyptian VET curricula and map the differences between the two systems. Conducted as part of the Compete Egypt project, the comparative study aims to provide insights that can inform the setting of development goals in the schools involved in the project. However, it is important to note that this research is only an initial baseline research on the differences between Finnish and Egyptian curricula. When the actual cooperation between Egypt and Finland gets started on a concrete level within the framework of this project, it will be possible to refine this comparative research. It will be possible, for example, to observe Egyptian vocational schools on site and conduct ethnographic research. Thus, the comparison between the study plans of Egypt and Finland gains depth and practical level solutions and differences in curricula, as well as in implementation, become more familiar and focused.

Background and Introduction to VET in Egypt and Finland

Egypt

With a population that exceeded 102 million in 2021, Egypt is the most populous country in the Arab Region and the 14th most populous globally. The country’s population is estimated to exceed 180 million by 2052, making it one of the nine largest populations in the world¹. With almost 60% of its population being below the age of 30 and the country’s population growth outpacing job creation, Egypt faces a significant challenge in providing access to necessary skills and employment opportunities for its sizable youth population¹.

¹ (ETF, 2021a)



A considerable number of young people (32.9%) in the country are neither in education, employment or training². Transitioning from school to work is challenging, and the issue of ‘educated unemployment’ is persistent in the labour market: lower-educated workers (illiterate individuals and those with basic literacy) experience low unemployment rates (3.4% and 2.4%), while the higher levels of education, such as university and intermediate secondary education, are associated with much higher unemployment rates (34% and 48.2%), indicating a significant skills mismatch between the education system and labour market demands³.

In Egypt’s Vision 2030, vocational education and training (VET) is seen as a key element in tackling the unemployment and skills mismatch challenge. Although Egypt has been working actively with international partners, including the European Union (e.g., the TVET Egypt programme), to improve the quality, relevance and attractiveness of its VET, challenges still exist. There are negative attitudes towards blue-collar work and technical education, often seen as a last resort option for students and parents in Egypt. Despite the growing demand for technical and vocational skills, VET is not appealing to students due to the poor image of vocational professions, the wages and working conditions and the expectations that young and unemployed people have regarding wage levels and careers.⁴

Since mid-2018, the Ministry of Education and Technical Education (MoETE) has embarked on an ambitious journey to transform technical education in all its elements through the Technical Education 2.0 strategy (TE 2.0), focusing on five key areas of reform to make vocational education and training (VET) more appealing and relevant:

- 1) Transformed Quality of Technical Education
- 2) Transformed Relevance of Technical Education by Transferring to Competency-based Curricula
- 3) Transformed Teachers through Training & Qualification
- 4) Transformed Schools through Employer Engagement & Work-based Learning
- 5) Transformed Image of Technical Education through Changing Social Perception

International partners (such as the EU, Germany and the USA) have cooperated closely with Egypt to implement the strategy.

One of the main outcomes of the TE 2.0 strategy includes the Applied Technology Schools (ATS), established in 2018 in collaboration with private sector companies. The guiding principles of ATS include quality assurance through international partnerships, a balanced approach to work-based and classroom learning, demand-driven education, learner-centred approaches, culture change promoting work ethics and productivity, and industry partnerships through a competency-based model. The ATS model aims to align vocational education with industry needs and foster productive and competitive workers.³

Finland

Finland has a population of approximately 5.5 million. The country consists of 21 regions and 311 municipalities, most of which have fewer than 6,000 residents. Despite an ageing population, Finland

² (ETF, 2022)

³ (ETF, 2020b)

⁴ (El-Ashmawi, 2018)



has a slightly higher proportion of young people than the EU average, mainly due to immigration. However, the proportion of people over 65 is increasing faster than the EU average due to the baby-boomer generations reaching pensionable age.⁵

Because of the demographic challenges, the demand for labour in social and welfare services will grow in the future. The demand is estimated to be nearly 120,000 in the period from 2008 to 2025. This also impacts VET because it directly relates to professions like practical nurses who acquire VET qualifications.⁶

Finland's educational policy strives to ensure equal educational opportunities for everyone. The objective of VET is to enhance and maintain vocational skills, develop commerce and industry, and meet the changing skills needs in the labour market. VET has been integrated into the education system to provide paths for employment as well as higher education or additional vocational qualifications.

VET in Finland is highly regarded, and approximately 50% of young people continue to study in a vocational institution after completing basic education (after 9th grade)⁷. According to Eurobarometer, nine out of ten Finns believe VET offers high-quality learning. This positive perception stems not only from the employment prospects and eligibility for further studies it provides but also from the high status and competence of VET teachers⁸. The percentage of Finnish VET students who enter the job market or continue with further studies directly after graduating is nearly 80%⁹.

Finnish VET is competence-based, aligning closely with the skill demands of employers while also emphasising entrepreneurial skills in all qualifications. In addition to general entrepreneurial skills (e.g., critical thinking, problem-solving, collaboration), the VET system offers a VET programme (further vocational qualification) specifically designed to support launching a business or developing existing business operations. In addition, all students can complete a business planning module as part of their VET programme.

Egypt's VET system

The VET system in Egypt is one of the largest in the MENA region, consisting of two main components: initial vocational education and training (I-VET) and continuing vocational and training (C-VET) programmes, with I-VET programmes being more common. VET programmes are mainly offered by public institutions operating under several ministries at various levels of education, from pre-university to post-secondary, and more recently at the university level through new technological universities¹⁰.

The VET system comprises over 2,900 institutions with approximately 2 million students. 89% of these VET institutions are government-owned, and 11% are privately owned. The Ministry of Education and Technical Education (MoETE) manages 2,266 schools that provide technical

⁵ (Cedefop, 2019)

⁶ (Cedefop, 2019)

⁷ (Ministry of Education and Culture, Finnish National Agency for Education, 2019)

⁸ (Cedefop, 2019)

⁹ (Vipunen - Education Statistics Finland, 2021)

¹⁰ (ETF, 2020a)



secondary education, offering an alternative to general secondary education for those who have completed preparatory education. There is also a small percentage of schools that implement the Dual Scheme DS. In addition, in 2018, the MoETE established the Applied Technology Schools (ATS), introducing a new competency-based certification system that is implemented, regulated and monitored, adopting international quality standards and in close partnership with employers.¹¹

In 2019, almost half of the upper secondary students in Egypt (46.9%) were enrolled in VET¹². Approximately 57% of all VET students are male, and 43.0% are female¹³. Most VET graduates do not go on to university, but some opt for mid-level technical colleges affiliated with the Ministry of Higher Education and Scientific Research¹⁴.

VET qualifications

The main VET qualification offered by the Egyptian VET system¹⁵:

- Vocational preparatory programme: lasts three years and leads to an ISCED level 2 qualification.
- Vocational secondary programme: lasts three years and leads to an ISCED level 3 qualification.
- Technical secondary three-year programme: leads to an ISCED level 3 qualification.
- Advanced technical secondary five-year programme: leads to an ISCED level 5 qualification. If a student chooses to stop after three years, they receive an ISCED level 3 qualification.
- Middle institutions/technical colleges/technological universities: two-year post-secondary non-tertiary education resulting in an ISCED level 4 qualification.
- Private higher institutions: four-year programmes leading to an ISCED level 5 qualification.
- Vocational preparatory programme: lasts three years and leads to an ISCED level 2 qualification.
- Vocational secondary programme: lasts three years and leads to an ISCED level 3 qualification.
- Technical secondary three-year programme: leads to an ISCED level 3 qualification.
- Advanced technical secondary five-year programme: leads to an ISCED level 5 qualification. If a student chooses to stop after three years, they receive an ISCED level 3 qualification.
- Middle institutions/technical colleges/technological universities: two-year post-secondary non-tertiary education resulting in an ISCED level 4 qualification.
- Private higher institutions: four-year programmes leading to an ISCED level 5 qualification.

The below figure shows how VET qualifications are placed in Egypt's education system.

¹¹ (ETF, 2020b)

¹² (ETF, 2021a)

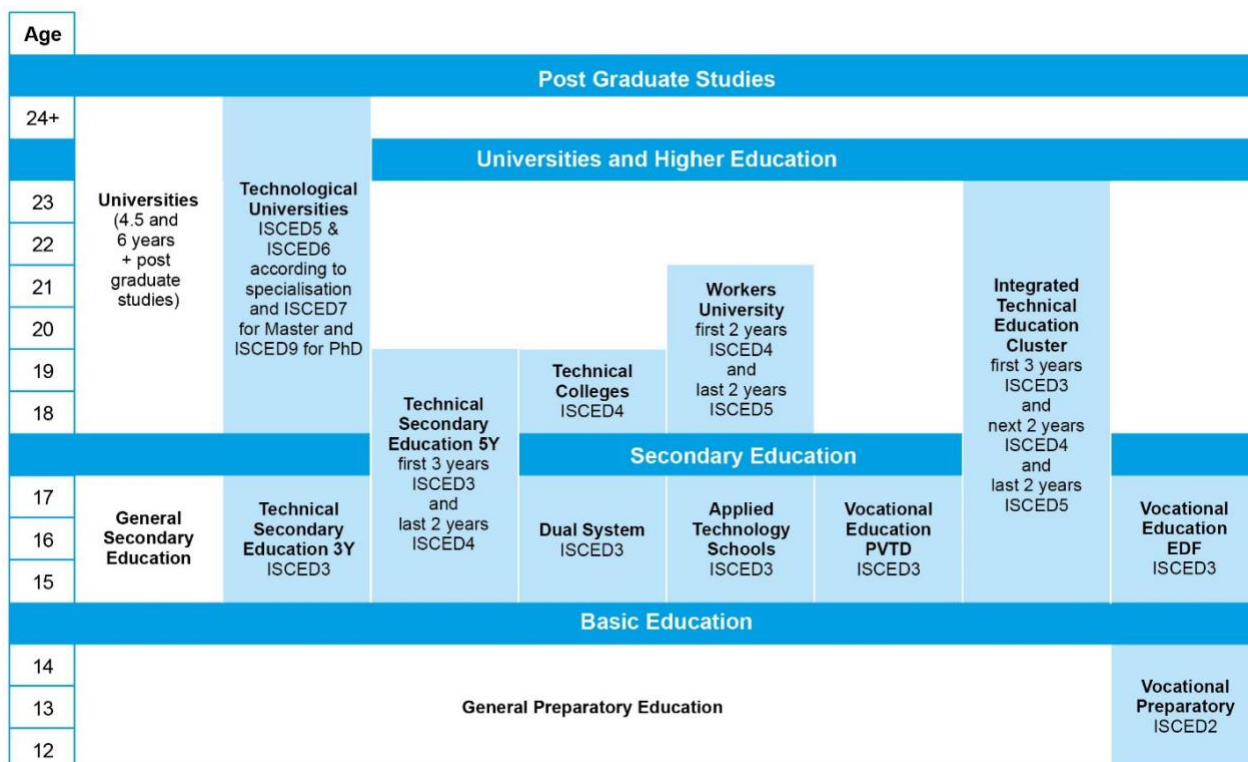
¹³ (ILO, 2021)

¹⁴ (ETF, 2021a)

¹⁵ (ETF, 2020a)



Figure 1: Egypt's education system. Source: adapted from ETF (2020b).



Work-based learning models

Teaching and learning in Egypt rely heavily on textbooks, and the practical application of knowledge is limited due to insufficient funds for materials needed in practical training. VET providers have focused on work-based learning to improve the learning process, and the government has been implementing work-based learning programmes for a long time. Some programmes have been discontinued after funding has ended, while others have become integrated into the VET system¹⁶. Despite implementing various WBL initiatives with positive results, participation in WBL has been much lower than the government's aim. The current goal is to increase the share of students in WBL from 2% (2016) to 50% by 2025¹⁷.

The ETF (2020b) lists the following work-based learning methods that are currently used in Egypt's vocational education and training:

- The PVTD's Industrial Apprenticeship scheme, known as Talmaza Sina'eyah.
- The Dual Education System implemented in select technical secondary schools.
- The School in Factory model implemented in technical secondary schools, which is also part of the Egyptian Dual system.
- Training Stations (the Productivity and Vocational Training Department's model).
- Work-based learning in the Applied Technology Schools, a new initiative piloted by the Ministry of Education and Technical Education (MoETE) in partnership with the private sector.

¹⁶ (ETF, 2020b)

¹⁷ (ETF, 2020a)



Additionally, the Ministry of Manpower (MoM) implements work-based learning methods for apprentices aged 12 to 18 through its 37 vocational training centres.

Lifelong long learning and RPL

Egypt's VET system is yet to establish an effective lifelong learning system. According to the ETF's Torino Process 2018-2020: Egypt National Report (2020), recent challenges are related to the lack of flexibility that would allow learners to leave and re-enter formal education as well as the absence of a fully operational National Qualifications Framework (NQF), outlining lifelong learning and skills acquisition paths. Additionally, no credible system is in place for recognising prior learning (RPL) and transferring credits between institutions.

However, the National Qualifications Framework, currently under development, aims to replace the old formal education system, focusing more on lifelong learning, flexibility, and resolving the issue of dead ends in learning pathways¹⁸.

Finland's VET system

Finnish VET is strongly based on the idea of flexible individual learning paths. Students can enrol in VET throughout the year, and a personal competence development plan is drawn up for each student¹⁹. The plan maps and recognises the skills previously acquired by the student and outlines what kind of competences the learner needs and how they can be acquired in different learning environments.

In the Finnish system, if the individual's competences meet the national qualification requirements, they can be acquired in different learning environments (both formal and informal) and at different times. There are no final or high-stakes examinations in the Finnish VET system. Students' competences are assessed throughout the VET programme through competence demonstrations by performing practical work tasks in the workplace.²⁰

Vocational qualifications consist of modules based on activities and processes found in the world of work and the competences required to perform them. In Finland, the modular qualification structure is seen as a way of keeping students motivated and reducing dropout rates. It allows individuals to have their learning outcomes recognised, regardless of how or where they acquired the skills. Completed modules can be accumulated towards a qualification, enabling individuals to return later to continue their studies, complete their qualification, or update their skills.

VET qualifications

There are three types of vocational qualifications in Finland:

1. vocational upper secondary qualifications (initial VET)
2. further vocational qualifications (continuing VET)
3. specialist vocational qualifications (continuing VET)

¹⁸ (ETF, 2020b)

¹⁹ (Ministry of Education and Culture, Finnish National Agency for Education, 2019)

²⁰ (Ministry of Education and Culture, Finnish National Agency for Education, 2019)



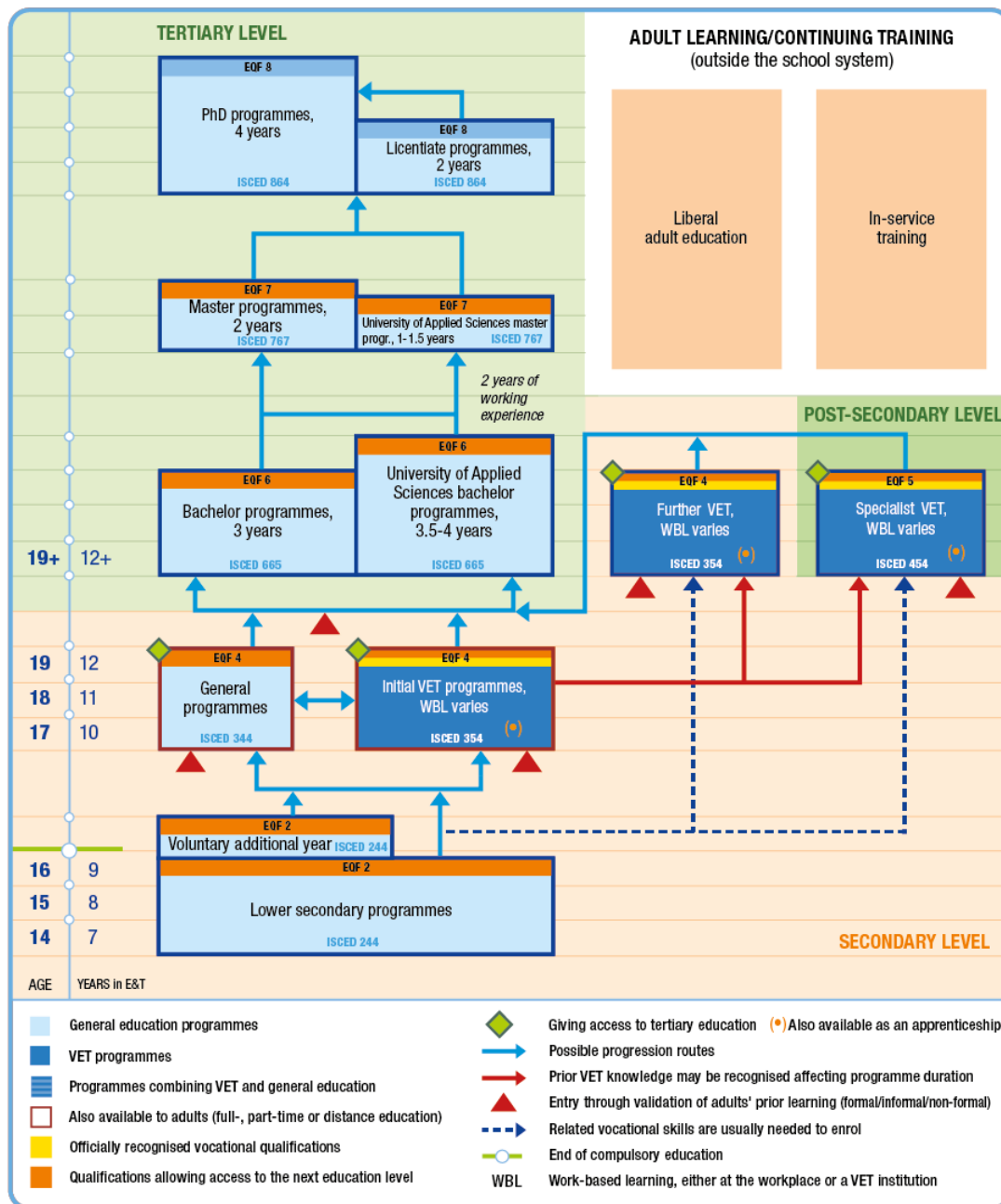
Currently, there are 160 vocational qualifications, of which 42 are vocational upper secondary qualifications, 64 are further vocational qualifications, and 56 are specialist vocational qualifications²¹. Within the Finnish national qualifications framework (FiNQF), which is based on the European Parliament's and Council's Recommendation on the European Qualifications Framework for Lifelong Learning (EQF), upper secondary vocational qualifications and further vocational qualifications are placed at level 4 and the specialist vocational qualification at level 5²².

²¹ (Finnish National Agency for Education, 2023b)

²² (Finnish National Agency for Education, 2023c)



Figure 2: Finland's education system. Source: Cedefop and ReferNet Finland, 2022.



NB: ISCED-P 2011.
Source: Cedefop and ReferNet Finland, 2022.

The scope of the qualification varies from 120 (ECVET equivalent) study credits to 210 credits, which are called ‘competence points’ in the Finnish system. A vocational qualification’s scope is 180 competence points, a further qualification’s 120/150/180 competence points²³. The standard length of an initial VET programme is three years, but the actual length is adjusted according to the student’s prior knowledge and skills. At the beginning of their studies, recognition of prior learning (RPL) is performed, and students are credited for previously acquired competence to ensure they only must acquire the missing competence during their studies.

²³ (Ministry of Education and Culture, 2023c)



Vocational qualifications are designed to provide a solid foundation of basic vocational skills applicable to different tasks in the field. Additionally, the qualifications focus on developing specialised competence and vocational skills specific to a particular sector or area of work.

All qualification programmes include vocational modules specific to the occupation or field, which are either compulsory or optional, with some optional modules determined by the VET provider. In addition, initial vocational qualification programmes also include general modules that aim to strengthen the basic skills needed in the world of work and life, as well as readiness for further studies and lifelong learning. These modules include 1) communication and interaction, 2) mathematics and science, and 3) citizenship and ‘working life’²⁴.

In addition, all vocational qualifications have been designed to develop key competences for lifelong learning. These key competences are integrated into the qualification programmes and requirements and assessment criteria²⁵. They include:

- multiliteracy
- multilingual competence
- competence in mathematics, science and technology
- digital competence
- self-development
- citizenship competence
- entrepreneurship
- cultural awareness

Emphasis on work-based learning

The 2018 VET reform increased the share of work-based learning (WBL) in Finnish VET. All students participate in WBL, which takes place in the workplace. There is no minimum or maximum amount of WBL in VET programmes; it can cover the whole qualification, a module/unit or a smaller part of the programme. The suitable amount is planned individually for each student in their personal competence development plan.²⁶

Two forms of work-based learning exist in Finland: training agreements (unpaid) and apprenticeships (paid). VET providers typically have framework agreements with local companies for work-based learning to ensure a 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 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.²⁷

Lifelong learning is a key principle in Finnish VET

The continuous changes in the world of work and the transformation of work require that competences are constantly updated. Therefore, one key principle in Finnish VET is continuous competence

²⁴ (Finnish National Agency for Education, 2023d)

²⁵ (Finnish National Agency for Education, 2023a)

²⁶ (Cedefop, 2019)

²⁷ (Omnia Education Partnerships, 2021)



development. The VET system caters to young people, adults, employees with upskilling or reskilling needs and the unemployed. In fact, more than half of VET students are 20–60 years old.²⁸

Initial VET (IVET) equips learners with the necessary vocational skills for entry-level jobs. It also helps learners become well-rounded individuals, prepares them for further studies and supports personal development. Continuing VET (CVET) offers more advanced skills and specialisation and is intended for adults with work experience.

Finnish VET curricula

Finnish vocational education curricula is competence-based and Finland's national strategic intent is based on a learning outcomes based approach. The national core curriculum of vocational qualifications was reformed in 1993–1994 and the former syllabuses, study units and subjects were replaced by vocational study modules and competence-based objectives and assessment criteria that are based on the operational entities of working life. At the same time, a competence-based qualification system was introduced in adult education.²⁹ The vocational education reform entered into force at the beginning of 2018. Its purpose was to reform the entire vocational training. In addition to legislation, the reform targeted the financing of education, guidance, degrees, and the implementation and organization of education. Reform aimed to develop further competency-based and student-centered orientation in vocational education and to increase individual study paths and learning at workplaces.³⁰

The learning outcome-based approach

The Finnish TVET curricula has transformed steadily since 1993-1994 from objective- and subject-based national core curriculum to national qualification requirements, and from the definition of objectives to the definition of vocational skills requirements. All the vocational requirements related to a qualification are defined as vocational skills and learning outcomes required in working life.

National qualification requirements define learning results as learning outcomes (vocational skills requirements, assessment targets and criteria), which in turn form the basis of learning, teaching and student assessment. A transfer has occurred from the dichotomy of theory and practice (and theoretical and practical contents) to competence entities. With respect to each qualification unit, the related vocational skills requirements and assessment targets are structured through work processes, methods and tools, as well as through knowledge as the basis of work, and lifelong learning skills. These, rather than study contents, also constitute the assessment targets.

Vocational skills requirements (targeted learning outcomes) are defined as learning outcomes (knowledge, skills and competences), which materialise in occupational activities. The learning outcomes achieved can be assessed – instead of written tests – in practical work assignments and genuine work environments. Three-scale assessment criteria expresses the level of learning outcomes and student assessment was changed to consist of a student's self-assessment, the assessment of

²⁸ (Ministry of Education and Culture, Finnish National Agency for Education, 2019)

²⁹ (Ministry of Education and Culture, Finnish National Agency for Education, 2019)

³⁰ (Vocational Education Reform, Finnish National Agency for Education, 2018)



learning outcomes and vocational skills demonstrations; the assessment of learning and the assessment of learning outcomes were separated.

The assessment of learning supports the learning process, whereas the assessment of learning outcomes involves the assessment of learning results. National guidelines for vocational studies support the vocational skills demonstrations. Also, national assessment of learning outcomes applies.

The objective of vocational upper secondary education and training is to provide students with the learning outcomes and vocational skills required by a vocational qualification, as well as capabilities for entrepreneurship. Furthermore, the mission of education is to support students' growth into good and balanced individuals and members of society, and to provide them with the diverse knowledge and skills needed in further studies, professional development and leisure activities and in the development of their personalities.³¹

Among other things, the future reviews of the ministries and the foresight work done in the Finnish National Agency for Education before drawing up the government program acted as some of the indicators to the 2018 reform of vocational education. Correspondingly, studies related to the marginalization of young people, the PIAAC³² study, reports and forecasts related to the Finnish and world economy and its development played their part.

The curriculum of an education provider

The curriculum decided by an education provider must comply with the national qualification requirements.

In their curricula, education providers must decide on at least the following:

1. the methods of providing education
2. the implementation of training in the workplace in conjunction with practical tasks
3. the student's opportunities for individual choice and the provision of units of learning outcomes in collaboration with other education providers and working life.
4. the provision of guidance counselling and preparation of a student's individual study plan the implementation of special needs education.
5. the general principles of student assessment the procedures for the validation and recognition of prior learning.

Furthermore, the curriculum of an education provider must state, by qualification, the provision of units and their order of completion, as well as the assessment of the students' learning outcomes. An education provider must also decide the methods and times of providing education, and the learning environments.³³

In Finland, teachers at all levels of education have autonomy and the opportunity to influence the content and methods of their own teaching. The teachers are highly qualified. Professional (vocational) teachers must have at least a lower (but usually higher) university degree and years of

³¹ (Finnish National Agency for Education, 2015)

³² *The Programme for the International Assessment of Adult Competencies PIAAC

³³ (Finnish National Agency for Education, 2019)



work experience in their field of expertise, before they can complete the teacher's pedagogical qualification. A teacher's pedagogical qualification is mandatory for vocational teachers in Finland.

Vocational upper secondary qualification

A holder of a vocational upper secondary qualification has broad-based basic vocational skills to work in different tasks in the field as well as more specialised competence and the vocational skills required in work life in at least one section of the field.

A holder of a further vocational qualification has vocational skills that meet the needs of work life and that are more advanced or more specialised than required in the vocational upper secondary qualification. A holder of a specialist vocational qualification has vocational skills that meet the needs of work life and that are highly advanced or multidisciplinary.³⁴

Broad-based and flexible qualifications

There are three types of qualifications – *vocational qualifications*, *further vocational qualifications* and *specialist vocational qualifications*. All qualifications are composed of units of learning outcomes. Vocational qualifications consist of vocational units and common units. Further and specialist qualifications comprise only vocational units and the necessity for common units is assessed when preparing the personal competence development plan.

Vocational units are either compulsory or optional. Students can complete entire qualifications, parts of them or smaller units, or combine parts of different qualifications based on their needs. Competence requirements are the same in all learning environments, also in workplaces. Qualifications are the same for young people and adults.

Vocational qualifications are independent of the way the vocational skills have been acquired. As long as the individual's competences meet the national qualification requirements, they can be acquired in different learning environments and ways, at different times. Students demonstrate their skills in competence demonstrations at practical work.

In addition to vocational qualifications, students can complete training preparing them for VET. This preparatory education and training provides students with capabilities for applying to VET leading to qualifications and fosters their preconditions for completing qualifications. Preparatory education and training for work and independent living is available for those who need special support. It provides students instruction and guidance according to their personal goals and capabilities.

VET also allows students to advance or supplement their vocational skills without having to aim at completing a qualification or its part. These aims and contents of so-called 'other VET' are tailored to the needs of workplaces or individuals.³⁵

³⁴ (Ministry of Education and Culture, 2023)

³⁵ (Ministry of Education and Culture, 2023)



Individual learning pathways

Prospective students can apply to VET whenever suitable and start their studies flexibly throughout the year. National joint application is organised each Spring for those who have completed basic education and who do not have a secondary qualification. The aim is to ensure each young person a student place after basic education.

A personal competence development plan is drawn up for each student. The plan is drawn up by a teacher or a guidance counsellor together with the student and, when applicable, representative of working life.

The plan charts and recognises the skills previously acquired by the student and outlines what kind of competences the student needs and how they will be acquired in different learning environments. Students may have obtained relevant skills from working life, another school, international study, work placement periods, family and leisure activities or through the media. Previous learning is recognised and only the missing skills are acquired.

The plan also includes information on the necessary supportive measures. The support received by a student may involve special teaching and studying arrangements due to learning difficulties, injury or illness, or studies that support study abilities.³⁶

Vocational special needs education

Vocational special needs education is designed for students who need special support in learning and studying regularly or on a long-term basis due to learning difficulties, disabilities, illness or other reason. Special needs education refers to systematic pedagogic support that is based on the students' personal objectives and skills as well as special arrangements for teaching and studying.

The purpose of special needs education is to enable the students to meet the vocational skills requirements and learning objectives for the qualification or the education. However, in special needs education exceptions can be made to the qualification requirements by adjusting the vocational skills requirements, learning objectives and skills assessment as deemed necessary from the perspective of the students' personal objectives and skills.³⁷

Publicly funded and free of charge

National and local government are responsible for financing VET as part of the state budget. Also vocational education and training organised at workplaces is publicly funded.

Apart from learning materials, VET is free of charge to students. Students are entitled to a free meal and school transport subsidies. For further and specialist qualifications, students may be charged a reasonable fee. Full-time students can apply for student financial aid and loans.³⁸

Learning at work strengthens competence

³⁶ (Ministry of Education and Culture, 2023)

³⁷ (Ministry of Education and Culture, 2023)

³⁸ (Ministry of Education and Culture, 2023)



Guided and goal-oriented studying at the workplace takes place in versatile learning environments both at home and abroad and is based on practical work tasks. Educational institutions, workplaces, workshops, worksites of educational institutions and virtual learning environments reinforce each other. The education provider is responsible for the education but the student will also be appointed a workplace trainer who must have the required competences for the task.

Studying at the workplace is either based on apprenticeship or on training agreement. Both can be flexibly combined. Learning at work can be used to acquire competence in all vocational qualifications as well as other training advancing or supplementing vocational skills. Studying at the workplace can cover an entire degree, a module or a smaller part of the studies.

In apprenticeship, most of the competence will be acquired at the workplace through practical work tasks and will be reinforced in other learning environments if needed. The student, education provider and employer agree on the arrangements on the apprenticeship together. The apprenticeship is based on a fixed-term contract between the student and the employer. The student is a full-time worker and receives pay.

In the training agreement, the student is not in a contract of employment and does not receive any pay or other compensation. This agreement is drawn between the education provider and the workplace.

The workplace is required to keep track of the development of the student, report to the education provider and take action if the competence is not reached. No minimum or maximum amount has been set for competence acquired in connection with practical work tasks. Instead, education and training organised at the workplace is planned as part of the personal competence development plan, taking into account the competence needs of the workplace and individuals.

The plan is attached to the agreement and the training is designed in cooperation with different parties. Students can find the workplace by themselves or ask the education provider for help with finding a suitable workplace.³⁹

Assessment of learning

A competence-based approach involves transferring from the assessment of single credits to the assessment of extensive competence areas that correspond to the work and operational processes of working life.

One of the aims of the new regulations is to emphasise the difference between the assessment of learning and the assessment of learning outcomes. The assessment of learning refers to the support and guidance provided to students in achieving vocational skills requirements and the objectives for learning outcomes. The assessment of learning involves monitoring and assessment of the students' competence development during their studies and providing them with feedback on their development. The assessment of learning outcomes evaluates whether the student meets the vocational skills requirements and the objectives for learning outcomes set forth in the national

³⁹ (Ministry of Education and Culture, 2023)



qualification requirements. The assessment of learning outcomes evaluates the level of competence, mainly expressed in grades obtained from an assessment scale. Reassessment of learning outcomes and improving a grade have also been defined.

The purpose of student assessment is to provide students with guidance and encouragement, develop their self-assessment capabilities, provide information on their competencies and ensure the achievement of vocational skills requirements and the objectives for learning outcomes defined in the national qualification requirements or the national core curriculum.⁴⁰

A student's learning outcomes are assessed by comparing them with those defined in the national qualification requirements or the national core curriculum.

Based on this assessment, each unit of learning outcomes is graded. The assessment scale for learning outcomes is issued by Government decree.

Students shall be entitled to receive information on the application of assessment criteria in the evaluation of their learning outcomes.

If the student has failed in his/her demonstration of learning outcomes, the education provider must arrange an opportunity for the reassessment of learning outcomes. If necessary, the education provider must reserve the student an opportunity to otherwise demonstrate a skill level that enables the continuation of his/her studies.⁴¹

Vocational education develops together with working life

The needs to develop professional competence arise from the changing trends in the surrounding society and operating environment. Vocational education must respond to the constantly changing needs of working life and develop the different professional skills that individuals need. Vocational training and the basis of degrees are developed in active cooperation with working life. The task of vocational education is to ensure the availability of labor in large employing sectors and to take care of the competence of small specialized sectors.⁴²

Implementing ECVET

In June 2009, the European Commission issued the EU member states with a recommendation on the establishment of a European Credit System for Vocational Education and Training (ECVET). This system can be used, for example, to recognise learning outcomes acquired and studies completed in another European country. The introduction of ECVET has two broader objectives. It promotes international mobility, primarily within the European Union, and facilitates lifelong learning. The aim is to facilitate credit transfer, accumulation and recognition through a consistent description system. The starting point is a system based on learning outcomes, which are defined as knowledge, skills and competence. Each qualification and qualification unit (units of learning outcomes) can be described on the basis of a certain number of ECVET points. The use of ECVET is based on national legislation, as well as operating principles issued in recommendations.

⁴⁰ (Ministry of Education and Culture, Finnish National Agency for Education, 2019)

⁴¹ (Ministry of Education and Culture, Finnish National Agency for Education, 2019)

⁴² (Finnish National Agency for Education, 2023)



The essence of the ECVET credit transfer system lies in qualifications and qualification units. In each country, competent institutions identify and recognise assessed and approved learning outcomes in these qualifications and qualification units in a manner that enables learning outcomes to be accumulated for a qualification or transferred to another study programme or qualification. The ECVET system provides the necessary tools and procedures, such as the description of qualifications through units, learning outcomes and points; procedures related to credit transfers; and documents, such as memorandums of understanding, learning agreements and user's guides.

The basic principle is that **competences can be acquired from a variety of sources, and can be assessed by persons other than the student's current teachers, as long as it can be ascertained through memorandums of understanding and learning agreements that the learning outcomes and competence assessment methods correspond to the national qualification requirements.** The purpose of ECVET points, or competence points, is to provide complementary information.

ECVET is based on the following: learning outcomes or competences, qualifications and qualification units, ECVET points (in Finland: competence points), recognition of prior learning as part of a qualification, mutual trust, partnerships between organisations, and documentation – in other words, factors introduced through the implementation of qualification structure reform.

A LEARNING OUTCOMES BASED APPROACH IN THE OPERATIONS OF EDUCATION PROVIDERS

A competence based approach forms the basis of all pedagogical activities.

The acquisition of learning outcomes and the related quality assurance are the starting points of pedagogical activities.

Learning outcomes and the learning processes, as well as teaching, guidance and assessment processes, are crucial.

The learner's learning outcomes and supporting their development is brought to centre stage and constitute the starting point of pedagogical activities.

In planning, learning and teaching activities, the student's existing competences forms the basis on which new competences are built as needed.

The validation and recognition of learning outcomes have been increased; A transfer from quantitative achievements to the acquisition and demonstration of learning outcomes has taken place.

All students transferred to the new system as from 1 August 2015 – this required thorough preparations in order to avoid unnecessary additional studies for students and extra costs.

The teachers are needed as before, but the starting point of teaching and assessment is the achievement and support of learning outcomes.

The emphasis is on the teaching and guidance needed by the student in support of the acquisition of competences. A transfer was made from subject-based studying to the acquisition of competences and demonstration of learning outcomes, and from credits to competence points.⁴³

⁴³ (Ministry of Education and Culture, Finnish National Agency for Education, 2019)



Egyptian VET curricula Reforming Education in Egypt

With over 21 million students enrolled in pre-university education, consisting of pre-primary, primary and secondary education, the Egyptian education system is by far the biggest in the Middle East and North Africa.

More than half of Egypt's population of 89 million* are below the age of 25. With over 36 million (41%) below the age of 19, Egypt is facing big challenges in terms of educating its youth for the future.

In August 2017, the new Minister of Education, Dr. Tarek Shawky, announced a full education sector transformation that puts students at the heart of the learning process. With a vision to ensure quality and relevant education for all Egyptian children and youth, the ministry introduced two parallel streams of reform: to make incremental, targeted improvements to the current system (Education 1.0), and to modernize Egypt's education system through major bold interventions (Education 2.0).

Education 2.0 promotes a vision of 'learning, thinking, innovating', where education is the means to create passionate and curious learners, open-minded communicators, and creative innovators to compete in national and international markets, and to contribute to creating a 'learning society' as well as the economic and social development in Egypt.⁴⁴

Formal and non-formal TVET

The formal VTCs offer training and re-training programs for both employed and unemployed workers in the labour force, while most of the informal provide vocational training for various disadvantaged groups, particularly women, the disabled and unemployed youths to improve their ability to generate income, usually in the informal sector. These centres are run by non-governmental organizations, local organizations and are heavily subsidized by government funds.

Egypt does not yet have mechanisms for the validation of non-formal and informal learning. However, in 2015, the **National Authority for Quality Assurance and Accreditation of Education (NAQAAE)** reviewed the Egyptian NQF model to incorporate Validation of non-formal and informal learning as one of the expected results and benefits of the NQF. The process of developing the NQF is currently (2020) pending approval by the Egyptian Parliament of the NQF Law drafted and presented by NAQAAE.⁴⁵

⁴⁴ (UNICEF Egypt, 2018)

⁴⁵ (UNESCO- UNEVOC, 2023)

National qualifications framework

In 2021 Egypt adopted legislative amendments that started a new phase - towards full operationalisation of the NQF. Development of National Qualifications Framework (NQF) in Egypt has almost two decades of history.

Operationally, the NQF in Egypt, when fully implemented, includes the following instruments:

- The National Qualifications Framework
- A credit system (based on an outcomes-based approach)
- Level descriptors (specified in terms of three domains of learning: Knowledge, Skills and Competencies)
- Articulation pathways (still being developed)
- A National Register of Qualifications (not yet available but are expected in the next developments of the NQF)
- A system for the recognising of prior learning (formal and informal learning) and transfer of credits (not fully operational as yet but work is being done in this regard)

The lead agency mandated for the development and implementation of the NQF is the **Egyptian National Authority for Quality Assurance and Accreditation of Education (NAQAAE)** which is an accreditation agency for all education in Egypt. The end-users of the NQF in Egypt include all stakeholders in education and training including employers, industry, organised labour, providers and students. The objectives of the NQF are identified as follows:

The architecture of the Egyptian NQF is demarcated by an eight-level structure, with levels 1 to 3 for general schooling, the technical school certificates are at levels 3 and 4 (3 and 5 years programs respectively), while levels 4 to 8 are for post-school education. This makes it a comprehensive framework designed to serve the purposes of all sub-sectors of education and training provision. Academic higher education has its first exit point at level 5, with further qualifications up to level 8. The proposed technical stream in higher education covers NQF levels 4 – 7, with no technical qualifications proposed for NQF level 8.

The Egyptian VET system is administered by a multitude of government agencies that often work independently, so a broad consensus exists on the need for a new regulatory framework.⁴⁶

⁴⁶ (OECD REVIEWS OF VOCATIONAL EDUCATION AND TRAINING: A SKILLS BEYOND SCHOOL REVIEW OF EGYPT © OECD 2015)



Labour market outcomes of VET in Egypt

Lack of data on the labour market outcomes of VET graduates makes it difficult to estimate the extent to which current VET provision meets labour market demand. At the same time, other local factors impose serious limitations to the data needed including: i) a very large informal economy; and ii) disincentives for formal economy employers to fully report on their employee numbers (e.g. social security provisions relating to worker's insurance and protection against dismissal).

There has been a growing unemployment rate among VET graduates (from 15.2% in 2006 to 16.6% in 2010) even when the number of them has been decreasing. At the same time, their skills are apparently in increasing demand according to employers. This contradiction might be explained by two possibilities: first, the low level of skills of some of the post-secondary VET graduates could make them not qualified enough for those jobs available; and second, some of the employers and stakeholders might not be fully aware of what VET programmes and their graduates might offer.

The labour market outcomes of VET are shaped by programme, specialisation and institution. Nearly 48% of graduates said that they got their jobs easily, particularly in health and nursing and tourism and hotel services but graduates of the industrial, commercial and social work sectors spent more time and effort in finding their jobs (SPU-MoHE, 2012:148).

Current VET curricula in Egypt might not be well-adapted to labour market needs, according to the same survey. When graduates were asked about the suitability of the technical material they studied in relation to labour market needs, only one-third of VET graduates said that it was appropriate. Nearly two-thirds of the graduates working in their area of specialisation agreed that their education was suitable and helped them in the labour market, while only 14.2% of the employees who were working outside of their area of specialisation supported this view (SPU-MoHE, 2012:150).

Finally, the self-reported degree of VET suitability for labour market requirements also varied across specialisations in Egypt. The nursing sector had the most positive results because graduates saw what they had studied as appropriate for the labour market (77.8%). Health followed by 70.5%, and tourism and hotel services came in third place at 49.2%. The worst results reported were those of the social work sector (43%) followed by the industrial (35.1%) and commerce (33.8%) sectors where most graduates did not see a good match between their studies and labour market requirements (SPU-MoHE, 2012:150).⁴⁷

The creation of a technical university to improve pathways to post-secondary VET

There are limited pathways for accessing post-secondary VET in Egypt. The main access is through secondary education in the form of general secondary schools, technical secondary schools as well as foreign secondary education (this category refers to international certificates issued in and out of Egypt but to a much lesser extent than the other two categories). Graduates from technical secondary schools can access post-secondary VET institutes and colleges according to their area of

⁴⁷ (OECD REVIEWS OF VOCATIONAL EDUCATION AND TRAINING: A SKILLS BEYOND SCHOOL REVIEW OF EGYPT © OECD, 2015)



specialisation. Although graduates with general secondary school education can join all the categories of the post-secondary VET system, they normally apply to access them only when their grades are below the level needed to enroll in university education.

Mobility across programs in the post-secondary VET system in Egypt, including transitions into academic tertiary programs (at universities and higher institutes), is also very restricted

In order to tackle the challenges mentioned above, the strategy in higher education in Egypt set as a priority to improve vocational education pathways to post-secondary education through the establishment of a new university specialised in vocational fields, which will offer master's and PhD degrees in technical and vocational areas.⁴⁸

Curriculum Development

Anticipation of skills needs in Egypt

In the past, Egypt has initiated various policies to support the anticipation of skills demands to develop relevant curricula, including the Egyptian Education, Training and Employment Observatory (EETEO) and Training Councils for specific sectors. However, these initiatives are not currently operational due to legislative and funding challenges. As a solution to this issue, some TVET authorities have utilised social dialogue in which workers and employers are the sources of informed opinion and expertise.⁴⁹

According to the ETF⁵⁰, various stakeholders have recently been working towards developing strategies to engage employers more effectively in identifying sector-specific skills needs in a more structured and sustainable manner.

Towards competence-based VET in Egypt

The MoETE, with its relevant bodies and centres, is responsible for curriculum content. With the launch of the Technical Education 2.0 strategy in 2018, educational reforms were started, aiming to enhance the quality and relevance of VET by implementing competency-based curricula.

Since 2015, the MoETE has been working with various international donor organisations to coordinate curriculum development. These joint efforts have led to creating of a unified approach called 'Competency Based Curriculum Design'. As a result, by the second half of 2019, several new programmes have been implemented in Technical Secondary Schools: 13 in industrial fields, 9 in agriculture, 5 in commerce, and 6 in tourism.⁵¹

The Competence Based Curriculum Design Methodology, as presented in the ETF's Torino Process 2018-2020: Egypt National Report (2020), includes the following 12 steps:

⁴⁸ (OECD REVIEWS OF VOCATIONAL EDUCATION AND TRAINING: A SKILLS BEYOND SCHOOL REVIEW OF EGYPT © OECD, 2015)

⁴⁹ (ETF, 2020b)

⁵⁰ (ETF, 2020b)

⁵¹ (ETF, 2020b)



- Designing the first draft for occupation programme framework
- Validation of the framework with industry representatives
- Modifying the framework according to industry representative consultation
- Building the programme plan/skeleton
- Designing the key lifelong learning competences
- Accreditation of the programme
- Designing the programme units
- Validation of the programme units with the industry representatives and pedagogical professors
- Design the student guide
- Design teacher guide
- Validation of the student and teacher guides
- Training on the programme implementation

Furthermore, the MoETE is also collaborating with employers and their organisations to develop occupational standards, desired occupational outcomes and assessment criteria⁵².

High stakeholder involvement in Finland's skills anticipation

Finland anticipates skills and training needs at the national and regional levels. The anticipation data is utilised to design educational content and tailor education offerings to meet the demand of the labour market⁵³.

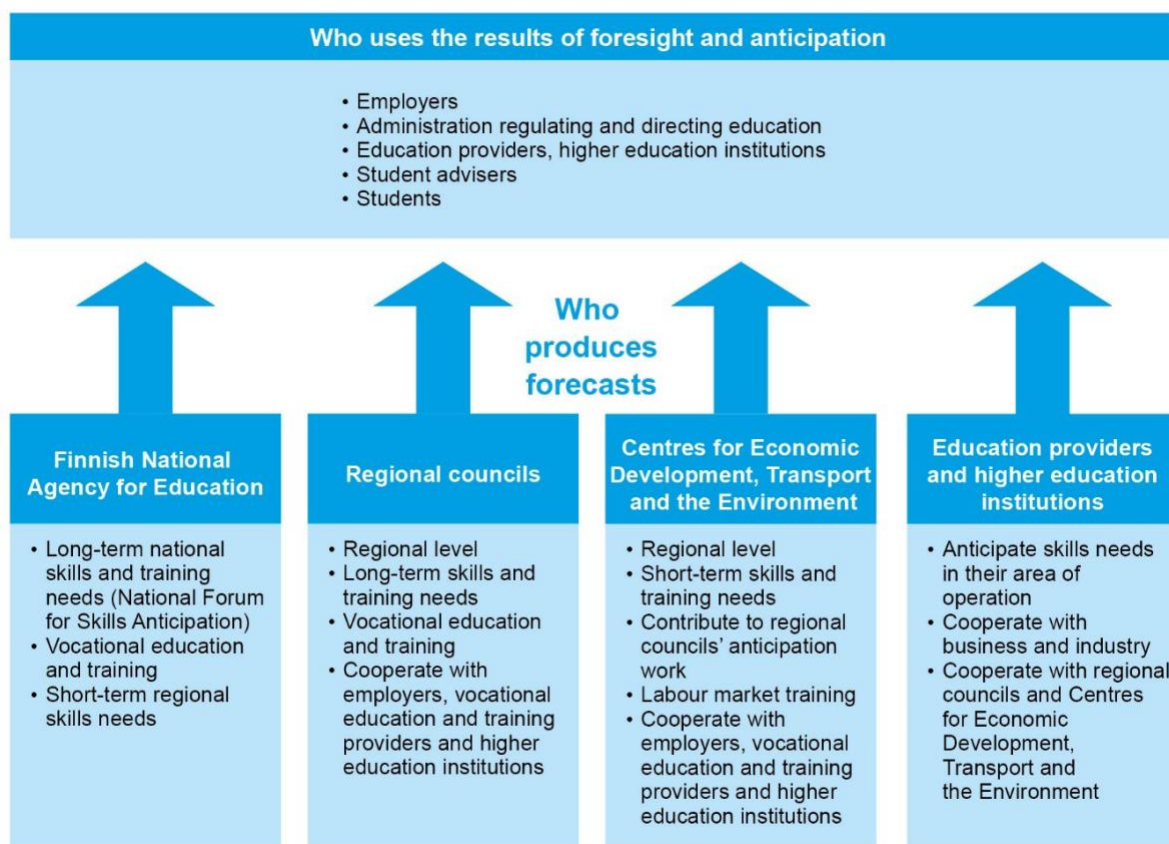
The key national organisations involved in anticipation activities include the Ministry of Education and Culture, the Ministry of Economic Affairs and Employment and the Finnish National Agency for Education. Regional anticipation is carried out in regional councils and centres for economic development, transport and the environment (ELY Centres). Education providers, higher education institutions, chambers of commerce, labour market organisations, research institutes and companies also produce forecasts.

⁵² (ETF, 2020b)

⁵³ (Finnish National Agency for Education, 2019)



Figure 3: Anticipation roles. Source: adapted from Ministry of Education and Culture (2019)



Finnish VET curricula are updated based on changes in the world of work

In Finland, the qualification requirements (i.e., high-level learning outcomes-based curricula) are updated continuously based on changes in the world of work and the results of skill needs anticipation. Changes in the world of work can lead to changes both in the qualification requirements and the structure of vocational qualifications. When the qualification structure is altered, the corresponding qualification requirements also need to be updated. Typically, creating new qualification requirement documents takes around one to two years.⁵⁴

The Finnish National Agency for Education, in strong collaboration with employers, employees, and the education sector, develops the qualification requirements. Self-employed individuals are also involved in preparing these requirements in fields where self-employment is common.

Each qualification is assigned to a sector-specific committee, called ‘working life committees’, operating under the Finnish National Agency for Education. The committees consist of representatives from employers, employees, teachers, and self-employed individuals. These committees are involved in developing qualification requirements and the qualification structure, as well as the quality assurance of VET and in overseeing the quality of competence demonstrations and assessment.⁵⁵

⁵⁴ (Cedefop, 2019)

⁵⁵ (Finnish National Agency for Education, 2023e)



Quality Assurance

NRPs. The National Agency for Education also disseminates good practices and information. Working life committees contribute to the quality assurance of the organisation of skills demonstrations and to the evaluation of skills and competences.⁵⁶

Summary and Conclusion

This comparative study aimed to examine the Finnish and Egyptian curricula and map the differences between the two systems. It was challenging to find comprehensive information about the more detailed content of the Egyptian VET curriculum. When the actual cooperation between Egypt and Finland gets started on a concrete level within the framework of this project, it will be possible to refine this comparative research. It will be possible, for example, to observe Egyptian vocational schools on site and conduct ethnographic research. Thus, the comparison between the study plans of Egypt and Finland gains depth and practical level solutions become more familiar.

<p>Collaboration with employers and WBL</p>	<p>There are existing but weak links between VET providers and employers despite a long history of public-private partnership projects.</p> <p>In the past, various initiatives have been implemented aimed at developing WBL models. However, participation in WBL has remained low (2% in 2016), and the government aims to increase participation to 50% by 2025.</p>	<p>The private sector and employers participate in anticipating skills needs and developing vocational qualifications, as well as in implementing WBL and assessing students' competences. All VET students take part in WBL. The amount of WBL varies according to the student's personal competence development plan. IT can cover an entire qualification or smaller parts. WBL is organised as apprenticeship training (students receive a salary) or as a training agreement (unpaid training).</p>
<p>Quality Assurance</p>	<p>The quality assurance system of VET in Egypt is based on the accreditation of VET providers. NAQAAE has been the authority for quality assurance and accreditation in all sectors of education until 2021. In 2022, the president signed a law to create a separate quality assurance body, EQTAAN, for VET.</p>	<p>Close collaboration with the world of work is essential for quality assurance in VET. The main QA components include quality management systems implemented by VET providers, national steering and regulation, as well as VET providers' participation in external evaluations. There is no inspector or ranking system for education providers.</p>

In conclusion, the comparative analysis reveals significant differences between the VET curricula in Egypt and Finland. However, despite these differences, there are notable similarities in their strategic goals. Egypt's TE 2.0 strategy focuses on developing areas such as competence-based learning, professional development opportunities for teachers, collaboration with employers, work-based

⁵⁶ (Finnish National Agency for Education, 2023)



learning, and improving the perception of VET. These elements are also integral parts of the Finnish VET system.

In Egypt, there are negative attitudes towards VET, and it is often seen as a last resort option. Challenges in attracting qualified VET teachers also exist, although efforts have been made to increase the profession's attractiveness and improve professional development opportunities. In contrast, Finland's VET system is highly regarded, with approximately 50% of students opting for vocational education after basic education. Teaching in VET is also an attractive career option in Finland, as reflected in the teacher training intake: less than half of the applicants are admitted.

The VET governance structure in Egypt is fragmented, involving several ministries and institutions. In Finland, VET is based on trust and shared responsibility. The Ministry of Education and Culture sets the overall goals of VET and grants licenses to VET providers who have considerable autonomy in organising and targeting their education offerings.

VET is publicly funded both in Egypt and Finland. However, financing in Egypt is based on the previous year's expenditure, whereas the Finnish financing system includes various mechanisms that also reward VET providers for outcomes, effectiveness and efficiency.

In Egypt, the vocational education and training (VET) system offers multiple qualifications through different providers at varying levels. However, the National Qualifications Framework (NQF) in Egypt – which would facilitate the establishment of clearer and comparable qualifications, increase access to qualifications and skills development, improve alignment with the needs of employers, enterprises, and individuals, and enable benchmarking and quality assurance against national and international standards – is yet to be fully operationalised.

The Finnish NQF is based on the European Qualifications Framework for Lifelong Learning (EQF) and encompasses three vocational qualifications: upper secondary vocational qualification, further vocational qualification and specialist vocational qualification.

Despite multiple efforts to establish WBL in Egypt and the successful integration of some WBL models into the VET system, overall participation in WBL in Egypt has remained low, standing at 2% in 2016. However, the government is aiming to increase participation to 50% by 2025. In Finland, the latest VET reform in 2008 increased the share of work-based learning. All VET students in Finland participate in WBL, but the amount varies according to the student's personal competence development plan.

In Egypt, the quality assurance system for VET relies on accrediting education providers. Until 2021, NAQAAE oversaw quality assurance and accreditation in all education sectors. However, a law was signed in 2022 to create a new body called EQTAAN specifically for VET quality assurance. In the Finnish context, quality assurance is comprehensive, including various stakeholders and consisting of national regulation and steering, VET providers' quality management systems and self-evaluation, and external evaluation activities. Active collaboration with employers is also crucial in ensuring the quality of Finnish VET.



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