

Iceland
Liechtenstein
Norway grants

Programme Operated by:



Foundation for the Development
of the Education System



Vocational Education Report

What's inside

About the report	1
SECTION-1. Vocational education and training programmes.....	2
1.1. Vocational education: A diverse field of education.....	3
1.2. Formation of vocational education and training	3
1.3. Diversities in vocational education and training.....	4
1.4. Challenges in vocational education and training.....	4
1.5. VET as both a field and a sector of education	5
SECTION-2. Norwegian vocational education and training.....	6
2.1. Vocational education and training in Norway.....	7
2.2. Upper secondary vocational education schools	8
2.3. Tertiary vocational education schools	8
2.4. VET Organisation and management in Norway	9
2.5. Quality in tertiary vocational education and training	10
SECTION-3. Vocational education and training offers	14
3.1. Admission to vocational education and training.....	15
3.2. Admission requirements to vocational education and training.....	15
3.3. Examples of vocational education and training offer	16
Report references.....	19



About the report



Edition: ©2023 Vocational Education Report

Copyright: All rights reserved.

Publisher: TERRAM PACIS Editorial.

Reference: TPOER-039-VER/26-04-2023.

This report looks at Vocational Education and Training in the Norwegian context and then, at its place within the Norwegian education system. The report starts by clarifying how the mostly used two key terms: **vocations** and **occupations** are used in the discussions within this report, as these are the key objects of vocational education and training. In particular, since the word vocation is used in quite different ways and for different purposes, an early clarification of its usage, is thereby herein warranted. Commonly, the word "**vocation**" is seen to have two meanings: (1). *An occupation or paid employment* and (2). *The activity or pursuit to which an individual is called and engages intentionally*. Herein, it is proposed that the concept of an occupation is used to address the first of these two meanings and the concept of vocation, the second meaning.

As elaborated later, occupations are held to largely arise from social facts (i.e. societal needs that have evolved through history, culture, society, and situation) and are manifested in a series of goals and practices which are sustained and advanced because they are important to societal needs and cultural practice. Consequently, their genesis and transformations are found within the social world. However, despite often being shaped through participation in occupational activities, the individuals vocations are essentially a product of the personal need, intentionality and desire. Vocations as personal facts are seen as being something that individuals need to assent to and engage with as elaborated later.

Hence, the position adopted in this report is that vocations refer to the activities or pursuits to which individuals assent and are more personal in genesis, whereas occupations are classifications of forms of work that are the products and the imperatives of society (i.e. institutional facts). So, from working through these key concepts, it becomes immediately apparent that what constitutes vocational education and training require relevant and helpful explanatory concepts. Hence, it is necessary to set out something of the conceptual premises used to advance an informed account of vocational education and training in this report.

Material produced with the financial support of the EEA & Norwegian Grants; its content does not reflect the official opinion of the Programme Operator, the National Contact Point, or the Office of the Financial Mechanism. The information and opinions expressed are the sole responsibility of the author(s).

The design, creation, development and production of this output is credited to all the partners, but not to an individual partner, and it is licensed under a Creative Commons Attribution-ShareAlike 4.0 International License: CC BY-SA 4.0.



SECTION - 1.

Vocational education and training programmes

1.1. Vocational education: A diverse field of education

Vocational education and training (VET) focus on specific trades and imparts the personal practical skills which allow the individuals to engage in a specific occupational activity. So, VET is not only important in providing employment opportunities to individuals but also helps in enhancing productivity since vocational education and training are both indispensable, crucial instruments for improving labour mobility, adaptability, and productivity, and therefore, contributing to enhancing the enterprises' competitiveness and/or redressing labour market imbalances. Thus, VET comprises all skill transfers, formal and informal, which are required in the improvement of productive activities of a sustainable society. Among key educational fields, VET is probably the least homogeneous. Indeed, its diversity in terms of its purposes, methodology, institutions, participants, and programmes stands as being one of its keys and defining characteristics. Therefore, VET serves a broad set of interests in quite distinct ways across a range of fields. However, this very diversity makes such difficult a unitary description and/or singular account. Moreover, as the factors that shape the purposes, forms, processes, and manifestations of the VET sector are evolving in distinct ways across different fields, in response to social and economic imperatives, they are also far more dynamic and prone to transformation than primary, secondary, or higher education.

Moreover, this diversity is also problematic because it is not often possible to readily transfer or apply the concepts from one circumstance to another. Well, this is because their histories, institutions, and imperatives, and even trajectories are distinct. In many countries, the imperatives brought about by industrialisation and the formation of modern nation states have led to the establishment of VET. These inevitably exist as a tertiary level beyond schooling and sit alongside, but usually in a posterior position to university programmes. VET is an education sector that and which usually comprises the key non-university element of national tertiary education systems. However, the important point here is that amongst the educational fields, VET has the broadest range of institutions, and their formation, transformation, and associations are products of impetuses within their countries. For instance, the Norwegian education system has programmes of the VET schools of two kinds: The Upper Secondary Vocational Schools and The Tertiary Vocational Education Schools, while in many other countries, vocational education and

training provisions are seen as being an extension of the schooling system. Yet, in certain times and in some countries, the VET sector has been deliberately separated from other educational sectors on the grounds of it needing to be more aligned with the demands of industry needs than other educational sectors. The distinctiveness of VET is found within the combination of cultural and functional contexts within society and the norms, attitudes and beliefs and ideals within societal and social subsystems which extend to the organisation of institutions.

1.2. Formation of vocational education and training

Overtime, various terms have been used to describe elements of the field of VET. They include apprenticeship training, vocational education, industrial arts, technical education, Technical/Vocational Education, Occupational Education (OE), Technical and Vocational Education and Training (TVET), and Career and Technical Education (CTE). Many of these terms are commonly used in specific geographical areas. For example, in Europe, the term VET is today in common usage, and it relates to the rise in the vocational education and training with technological changes produced by the industrial revolution in Europe. Due to mechanisation of processes, jobs became complex and more specialised, which resulted in a demand for more skilled workers. This, in turn, promoted the growth of education that could provide training and skills for technically proficient labour. At this stage, the traditional modes of training then became inefficient, and skill's requirements of old jobs were upgraded. The main aims of the expansion of vocational education during this century were to meet the demands for a technically proficient labour force, integrating the young employees from lower socio-economic background and training a loyal and disciplined young workforce.

After the mid-twentieth century, independent nations started expanding post-primary education and many vocational training programmes were introduced at the secondary level. During the post-World War II period, many international agencies, such as International Labour Organization (ILO) and UNESCO, played major roles in the development of vocational education. It has been opined that at least three ideal models of the vocational system emerged. One is a market-led system in which labour market characterised by substantial mobility provides much of the vocational training. Another is a school model

where most of the VET takes place in schools. And the third is a dual model with the presence of an apprenticeship system. Yet, in recent years, creation of a skilled labour force has been a challenge in many countries, where there is a growing demand for a skilled labour force which has remained unfulfilled. To meet the requirement for a skilled labour force, more emphasis has been given to VET programmes. This issue has been at the centre of the policy agenda of many national governments, which forced them to initiate various steps towards building a sound VET system. So, considerations of what constitutes best practice and attempts to standardise and regulate uniformly need to be addressed carefully. The elaboration of VET needs to be sensitive to how the diverse purposes for and range of educational provisions are best understood on a national not global basis. However, beyond this, there is also a need to understand how VET meets the needs of its students.

1.3. Diversities in vocational education and training

Vocational education has diverse purposes. However, the four purposes that are most central to VET provisions focus on: (1). The preparation for working life including informing individuals about their selection of an occupation; (2). The initial preparation of individuals for working life, including developing the capacities to practice their selected occupations; (3). The ongoing development of individuals throughout their working life as the requirements for performance of work transform over time; and (4). The provisions of educational experiences supporting transitions from one occupation to another as individuals are either elected or forced to change occupations across their work-life. Indeed, is against this diversity that the effectiveness of the purposes, processes, and outcomes of this field of education are most often evaluated on. It is also from such a set of expectations that the distinctive qualities and characteristics of VET stand to be appraised by government and the community and discussed within both public and professional discourses. Hence, the educational concerns in the VET include finding ways of assisting individuals to identify the occupation to which they are suited, initial development of capacities required for that occupation, and then, the refinement of those capacities and their ongoing development throughout working lives and in ways to sustain employability. However, all of these require interpersonal skills development such as communication skills, problem solving skills, planning, being literate and numerate that are not occupationally specific, yet that are required for

effective participation in work and working life, as well as in life outside of work or social life.

These VET's diverse purposes are enacted through a diverse set of institutional arrangements, including universities, colleges, and schools but also other actors such as workplaces, training centres, or community education facilities. Further, there are often relations amongst these institutions that make the organisation, provision, and integration of the VET learning experiences demanding for both those providing the experiences and those learning through them. Hence, VET provisions and institutional arrangements supporting them lead to distinct kinds of educational institutions, purposes, forms, and provisions, which do give rise to distinct alignments with other fields of education. For instance, in some states there is clear articulation between programmes within VET and higher education while in other countries, these articulations are either non-existent or difficult to negotiate since there is no single global model that can be universally applicable to VET. Moreover, students who participate in VET sector are more diverse than students in formal education. This is because they comprise learners who are adolescents, young, and middle aged or older adults. Some of these learners are concerned about securing an initial occupation and entering work-life, others about developing further their skills, or shifting from one occupation to another.

1.4. Challenges in vocational education and training

Academic education is more flexible because it allows a person to change their job easily whereas largely vocational education and training (VET) is suitable for a particular type of work. Though vocationally trained workers are more efficient in handling old technologies, however, since technology is unpredictable and changes over time, such workers require frequent training, whereas academic education enables workers to adapt to new technologies. The VET is important in other aspects such as alleviating mass unemployment, providing specific skills for self-employment, preventing mass movement of school leavers from rural to urban areas, and re-orientating student attitudes towards rural society. Another related challenge is the extent to which the formal education system should be vocationalised. This is important for at least two reasons: firstly, how the required skills will be provided, if not through vocational education, and secondly, given the substantial amount of

subsidy allocated to VET programmes, whether the returns on these spendings are optimal. These issues are difficult to resolve, and owing partly to data unavailability, are hardly addressed in many countries. Both the supply side (for example, where should VET be focused?), and the demand side (for example, who wants to be vocationally trained?) factors are important to identify in addressing these challenges. Though another macro-element that influences the solutions is the availability of job opportunities in an economy.

On the other hand, another challenge is that most VET Students or learners have previously participated in a range of different kinds of educational programmes and experiences and have secured different levels of success. These learners are also at different stages in their careers and working lives (i.e., workforce entrants, novice practitioners, newly qualified practitioners, or experienced practitioners). For instance, they can include the women seeking to return to working life after being the principal care giver to children or aging parents, young school leavers trying to find an occupation that meets their needs, and then participants who have been recently retrenched from their job or who are long-term unemployed. Moreover, these educational needs frequently extend well beyond occupational concepts and procedures. Whereas students in prestigious academic education in vocational courses such as medicine, law and commerce likely have high levels of educational achievements, VET learners are not so well positioned in terms of their needs and the provisions of educational support available to them. That is, the VET learners needs and those provided through VET programmes or systems are not always well aligned because of their readiness to engage in studies, their interests, the options available to them and their bases for participating in VET. Moreover, the content of courses is often determined by external bodies whose interests and emphases may or may not be consistent with those of the students. And thus, because of this complex combination of factors and characteristics, VET students represent potentially the most heterogeneous cohort of learners in terms of interests, readiness, prior experiences, or potential for engagements of any of the key educational sectors (secondary or higher education).

1.5. VET as both a field and a sector of education

Vocational education and training comprise a broad field of education. This

field includes as a sub-element, a specific sector of post-schooling education also commonly referred to as vocational education that usually has a particular set of country-specific institutions and alignments. Despite the field of VET being far broader and more encompassing, it is often this sector that has come to characterise vocational education when it is discussed in the public, government, and educational discourses. Yet, it comprises a broad field of education that includes all those programmes and provisions that have intents associated with developing capacities for specific occupations or working lives. For instance, the educational provisions for medicine, law, commerce, and physiotherapy offered through universities, and pre-vocational programmes in high schools are both components of the broader field of vocational education, and those offered by the VET Sector. Hence, there are more commonalities across this field than are usually expressed in the public and scientific literature, which tends to see these provisions as being two distinct and separate sectors, rather than there being a distinct field of vocational education endeavour. In essence, they have the same educational project. The overall commonalities across these range of offerings from universities, vocational colleges, and schools is sometimes seen more easily from an external perspective than from within the field of education.

That is, regardless of the institutional context, these provisions are associated with developing and sustaining the capacities required for the working life. Their educational purposes are primarily concerned with identifying the knowledge that is required for effective performance in an occupation, and then, organising experiences to capture that knowledge through finding ways of enacting those experiences so that the learners can come to be effective in the occupational practices. This is the case, regardless of whether one is learning about medicine, law, hairdressing, tourism, cooking, safe work practices, etc. Moreover, all these intended learning outcomes are captured within a coherent set of educational goals associated with developing procedural and conceptual attributes required for those practices. Hence, despite diversity and seeming distinctions amongst institutions offering vocational education and training, there is so much that is common to the provision of VET that makes it coherent as a field of education. This commonality extends to the kinds of educational intentions to be realised (for example, the development of occupational specific knowledge), and the need to engage with external partners such as the private sector (for example, providing experiences across educational and practice settings).



SECTION - 2.

Norwegian vocational education and training

2.1. Vocational education and training in Norway

The Norwegian education system has programmes for vocational education and training of two kinds: The Upper Secondary Vocational Education Schools and Tertiary Vocational Education Schools. Though the vocational education sector in Norway is advanced, it is also complex and often changing. VET sector consists of schools with different ownerships and in some cases very different provisions, and student number at vocational schools ranging from less than 50 students to over 3000 students. A clear majority of vocational schools currently have private ownership, but the public vocational schools and colleges still account for about half of the total number of students as of 2022. The public vocational education schools and colleges offer, among other things, the publicly funded technical and maritime education, as well as offers in health and early childhood education. Whereas many private vocational colleges have a range of offers within creative and mercantile subjects, service, media, multimedia, and ICT subjects.

The public vocational schools are largely owned by the counties, except for four vocational schools that are owned by the state. For other schools, at the same time, the picture is somewhat more complex than the distinction between public and private, which are the main categories of ownership presented in the recent evaluation report by the [Norwegian Directorate for Higher Education and Skills](#). The report contained several measures aimed at ensuring that tertiary vocational schools/colleges are well organised, with clear ownership and good governance. This entailed clarification and requirement for the composition of the boards of vocational schools, and the representation from the labour and business sectors and the right to vote for students and employees on the board. Even though the formal requirements for board composition are largely met, there is still a long way to go when it comes to actual participation. There are also still challenges associated with the county municipalities' dual role as owner and manager, and some actors in VET advocate that discussions on county ownership of vocational schools should be resumed.

Further, the above vocational education report suggested the government a total of 48 measures that should contribute to strengthening and further development of the vocational education sector. The report proposed a

range of measures that can broadly affect the tertiary vocational education sector on several levels and require the use of several central instruments on the part of county authorities to contribute to change and achieve national objectives for tertiary vocational education sector. Achieving national VET objectives should ensure that:

1. The students must get involved in the subject and succeed in tertiary vocational education and training.
2. The academic environment must be up-to-date and practice-oriented vocational competence.
3. The tertiary vocational education sector must offer education that the labour market needs, and that the students want.
4. The tertiary vocational education sector must be well organised, with clear ownership and good management.

Then, to meet the above objectives, several of the proposed measures in the tertiary vocational education report are specifically aimed at strengthening a knowledge base in the VET sector. In several cases, these measures include surveys aimed at students or the former students, including the inclusion of tertiary vocational education educators in the Studies-based and Living Conditions Survey, and the implementation of the Candidate-based surveys. Although these measures have been implemented, the report shows that there is a perception among actors in the VET sector that these surveys are not sufficiently well adapted to the tertiary vocational education, and that some further work is thus needed to ensure the accuracy of the investigations. A lack of adaptation and accuracy is perceived to leading to deficiencies in the knowledge base in VET sector, both in that fewer students respond to the surveys and by not providing the sufficiently relevant information. It is important that this feedback is followed up, so that the surveys can provide a good knowledge base for quality vocational education and work outcomes to an even greater extent than today. At the same time, the report clearly shows that, among other things, the studies surveys provide important information in relation to quality of vocational education colleges, which shows that there has been a positive development in terms of the sector's knowledge.

2.2. Upper secondary vocational education schools

The upper secondary VET in Norway covers 10 education programmes that lead to more than 180 different trade or journeyman's certificates. The most of upper secondary VET programmes follow the main 2+2 model. The model entails two years of education in an upper secondary school and then followed by two years of apprenticeship training and productive work in a training enterprise or public institution. The final exam is a trade or journeyman's test leading to an EQF level 4 qualification. In this context, the upper secondary schools are responsible for the first two years of education and training, while the hosting enterprises are responsible for the final two years.

During the two-school year, the VET pupil is then given a general introduction to the vocational field and an opportunity to specialise in a chosen craft or trade. The teaching focuses mostly on common subjects (Norwegian, English, mathematics, physics, natural sciences, and social sciences), and common programme subjects which cover trade-specific theory and practice. During the first year (*vg1-upper secondary level 1*) these subjects offer a general introduction to the vocational field. During the second year (*vg2-upper secondary level 2*) the subjects become more specific as the VET pupils decide which trade, they want to pursue. Hence, the apprenticeship period gives the apprentice an opportunity to gain in-depth knowledge in a vocational field and prepare for the trade or journeyman's test. The two-year apprenticeship is formalised through the signed contract between the apprentice and the training enterprise. Though the county authorities have an overarching responsibility for all aspects of public upper secondary education and training, including apprenticeship training within the VET sector. Therefore, the apprenticeship contract must be approved by the county authorities.

Social partner representatives from business, industry and the public sector hold most of the seats in all advisory bodies in the decision-making system for upper secondary VET. Close dialogue with the social partners is therefore important in anticipating skills needs and in securing relevant provision of VET. Thus, tripartite cooperation is important in both designing the VET provisions and in assuring relevance and quality in accordance with the labour market needs. The social partners have been actively involved in the development of a new structure of available courses and apprenticeships which is in force from

the school year 2020–2021 and in the development of renewed VET curricula for all trades and crafts in accordance with labour market needs. The new VET curricula are as well implemented as of the school year 2020–2021.

2.3. Tertiary vocational education schools

Tertiary vocational school education in Norway is a short, vocational education that usually lasts from six months to two years in the case of full-time. To enter a tertiary vocational college, the student must have passed upper secondary school vocational education or have an equivalent vocational qualification. Both vocational certificate, journeyman certificate and general study competence can give access to study at a vocational college. The education is often arranged so that it can be taken while the students are at work. That is, tertiary vocational education provides vocational education founded on an upper secondary school education or equivalent prior learning and work experience and comprises the equivalent of at least one-half year and no more than two entire academic years. [The Norwegian Tertiary Vocational Education Act](#) defines vocational education as "an education that provides competence for working life without further general training measures". Pursuant to the Act, tertiary vocational colleges shall provide education of high quality and equip students with satisfactory skills, conditions.

The county authorities are responsible for ensuring the provision of accredited tertiary vocational education that considers local, regional, national competence requirements within priority sectors. Tertiary vocational education is important to secure brief, vocational provisions in line with new skills needed at the labour market and requirements set in working life. Tertiary vocational education and higher education are different alternatives to education after upper secondary school, each with its own legislations and objectives. The overarching goal of tertiary vocational education is that "approved tertiary vocational education shall be of high quality and provide students with quality-assured, flexible education programmes tailored to the job market", cf. draft resolution Prop. 1 S (2012–2013) for the Ministry of Education and Research.

From July 2018 vocational college education is measured in credits: One-year study (full-time) gives 60 credits and two-year study (full-time) gives 120 credits.

The students get the grades according to the letter system A (best) to F (fail). For some final assessments, a pass/fail grade is given. According to the Ministry of Education, there is still no automatic compatibility between credits taken at vocational schools and credits taken at college and university. If a student has taken credits at a vocational school and want to use these to get an exemption from parts of an education at a college or university, it is still up to the college or university to assess whether the student's vocational school education gives them what they need to get an exemption. Though as some vocational schools have collaborations with the Norwegian colleges and universities; this makes it possible to build on vocational school education to a bachelor's degree and possibly to a master's degree. They also have similar agreements with foreign universities. It is also worth noting that, on a general basis, anyone who has completed 120 credits at a vocational school can apply to go on to university or college because they have gained general study qualifications. The individual educational institution must assess how much exemption can be granted based on a comparison of the content of the study plans.

All tertiary vocational education must be approved by the Norwegian Agency for Quality Assurance in Education (NOKUT). So, in order to be accredited, the education must satisfy national performance standards stipulated by regulation. NOKUT supervises tertiary vocational education and accredits tertiary vocational schools' internal quality assurance systems. Such approval entitles students to financial support from the Norwegian State Educational Loan Fund, though vocational education constitutes a small part of Norwegian education system, with approximately 15 000 students.

2.4. VET Organisation and management in Norway

In the white paper on tertiary vocational education, about ten measures were proposed aimed at ensuring that tertiary vocational schools are well organised, with clear ownership and good governance. Several of the measures deal with composition of vocational schools' boards and the clarification of the board's authority and responsibilities, including strengthened rights for the students' and employees participation in the vocational schools. In addition, one of the measures concerns the representation of the labour and business sector on the boards of the vocational schools. Measures aimed at financing the sector were also proposed. [The report](#) shows that although a positive development is

pointed out in the sector, there is still a need to further clarify the organisation and the management of the VET sector.

The student's participation in the sector is demanding. Although the rights to student participation on board have been formally safeguarded, it is however difficult to achieve good student participation in practice. This is related to the distinctive character of the vocational schools and the distinctive character of the students. Many of tertiary vocational education students do take part-time educations and many of the educations are online, and thus, in addition, many educations are of short duration. The VET Students in tertiary vocational education are also significantly older than students at universities and colleges, and many of the students are already established in the labour market and/or have family. These factors help explain why student participation in clinical placements can be demanding. Both in terms of the time aspect and the fact that many of the study programmes are not campus-based mean that fewer students are involved in the student bodies and as student representatives, in addition to the fact that it is difficult to achieve continuity in various positions. Though students themselves have responsibility to get involved, it is important that vocational schools and the sector as a whole work to find ways to increase student participation; not only formally, but also real.

On the other hand, several challenges are identified with county's responsibility for vocational schools. Challenges concern several and different circumstances. Among other things, [2023 evaluation report on vocational education](#) shows many challenges related to the county municipality's role as owner, and the framework that applies to county municipality's management of its own vocational schools. There seems to be a need to clarify the framework for the county municipality as owner and manager of vocational schools, in relation to the role of the board as the highest responsible governing body. Hence, it also points to other several challenges due to the fact that county vocational schools must use systems and agreements that are not well adapted to current VET sector, including collective agreements for employees and the use of study administration system [Visma in School](#). This is important to follow up to ensure that county ownership does not impede good development in VET sector. Evaluation report noted that several representatives of the county owned vocational schools believe that considering these many challenges, the discussion should be held as to whether the county ownership of vocational schools is appropriate.

Moreover, the challenges related to the county municipalities as responsible for regional competence policy have been pointed out. The evaluation report shows that there are divided opinions in the VET sector regarding whether the county municipality is perceived as taking an active role in mapping competence needs in the region, and that there are different approaches to this. There also seems to be a clear need to establish systems related to both mapping and prioritising national competence needs as deemed by today labour market. This is because the competence needs committee's work does not seem to meet the knowledge needs of vocational schools and county authorities at a sufficient level of detail. The report points out that it is important that the measure to establish dialogue meetings between the Ministry of Education & Research and County Authorities is implemented, to ensure that the county authorities' responsibility for the VET sector, including the responsibility associated with mapping competence needs, to a sufficient extent, are followed up.

Furthermore, the report points out that there is a need to clarify how the county authorities should separate their roles as owner on the one hand, and manager on the other. There are many differences in organisation, attention, and practice between the county authorities in the VET sector and the vocational schools that must deal with different county municipalities, experience great variation in how this is handled. Norwegian Agency for Quality Assurance in Education (NOKUT) is a key player in ensuring quality in educational programmes, but in general the report points to major challenges with NOKUT's work on accreditation because of very long processing times. The consequence is that the vocational schools must wait for a very long time to start up new educational programmes that are needed in the working life. The report points out that it must be ensured that the NOKUT capacity does not become a barrier to the development of the VET sector and prevent the sector from offering education that the labour market needs and students demand. Increased number of subject area's accreditations could alleviate some of these issues. At the same time, the report points out that it is very important to be aware of the risk that only a few of vocational schools benefit from this instrument. Hence, a desired effect of a possible increase in the number of subject area accreditation must be that the processing time in NOKUT is also reduced.

2.5. Quality in tertiary vocational education and training

The measures in the tertiary vocational education report have contributed to an increased attractiveness, increased relevance, and to some extent, to a better learning and a more solid academic environment. At the same time, there are also some significant barriers to the desired development, and aspects of the VET sector and developments that are perceived to counteract the desired development in terms of quality-enhancing factors. The white paper on tertiary vocational education emphasises that quality in education and training at all levels is one of the Government's most important objectives and emphasises that the main objective of tertiary vocational education is a "tertiary vocational education that is of good quality and adapted to the needs of working life." So, in the following section, we look at measures in the tertiary vocational education report that are focuses how to raise the quality and stimulate development in vocational schools. The concept of quality was the subject of discussion in the tertiary vocational education report, and in the evaluation, the report used this quality discussion as the basis for its understanding of the concept.

The report begins by placing particular emphasis on examining how the quality-enhancing measures in the tertiary vocational education are implemented and affect the quality of tertiary vocational education. Furthermore, the report links quality work to the knowledge base, and focuses on how the existing knowledge base facilitates high quality in tertiary vocational education. In this context, the report discusses the importance of ensuring relevance, good learning, and solid academic environment. The quality of education through the tertiary vocational education is closely related to the attractiveness of higher vocational education for both working life and potential students. So, attractiveness is therefore also a topic the report explored in detail, along with visibility, which in many ways is a prerequisite for increased attractiveness and should be able to have effects in the form of increased number of students: ensure that more people are pursuing high-quality vocational education that is relevant and adapted to the needs of working life. Nevertheless, to achieve the goal of more people taking higher vocational education, one must ensure that the education is both recognised and visible to applicants and employers. Though here the focus is on the concept of quality education as used in the tertiary vocational education report, and the discuss is on the

effect of the proposed measures on various aspects of quality work and the quality of education and examine whether and how the measures have had intended effects on vocational education's visibility and attractiveness, as well as relevance learning environment and solid academic environment.

2.5.1. The concept of quality in tertiary vocational education

The importance of facilitating quality development in the sector was highlighted as very central by the tertiary vocational education report, a great emphasis is placed on quality in education. Good quality at all levels of the education system is necessary to ensure highly qualified labour, well-functioning welfare services and a competitive business sector. Good quality education is also important for further developing a well-functioning democratic society with active citizens. Ever faster technological changes require continuous changes in education if it is to be relevant for students and working life. This is especially noticeable for tertiary vocational education, which aims to be flexible and vocationally oriented and adapted to new technology and new trends and needs in working life. The vocational education report explains the concept of quality by emphasising that several conditions must be in place for an education to be good:

- Abiding to laws and regulations.
- Administration, construction, equipment, and finance for management of vocational schools.
- The professional, practical, and pedagogical facilitation of education.
- Teachers' competence.
- Students' prerequisites, motivation, and efforts in the programme.
- Relevance to working life.

It adds that, among other things, the following factors contribute to influencing the quality of education:

- Admission requirements for the study programmes.
- The content, design, and facilitation of the educational programme.
- Interaction with schools, business, industry, and private sector.
- The employees' combined competence with a view to ensuring a solid and stable professional environment.

- Students' learning environment.

2.5.2. Quality of vocational education in the context of national objectives.

The four main objectives presented in the tertiary vocational education report, to which the measures are linked, all refer to factors that are central to ensuring good quality in education:

1. **The students must get involved in the subject and succeed in tertiary vocational education and training:** Committed and motivated students, with attention to vocational and school-related activities and the opportunity for influence are important to ensure good quality in educations.
2. **The academic environment must be up-to-date and practice-oriented vocational competence:** To maintain good educational quality, it is important to have a robust academic environment with a solid knowledge base developed in contact with working life and national and international academic and competence environments.
3. **The tertiary vocational education sector must offer education that the labour market needs, and that the students want:** Educations that are relevant, attractive and provide good work opportunities, based on knowledge of national and regional competence needs and feedback from working life, are important in ensuring Good, Quality tertiary vocational education.
4. **The tertiary vocational education sector must be well organised, with clear ownership and good governance:** Efficient, targeted operation of tertiary vocational schools is also important to ensure good quality vocational education. This is achieved through the establishment of a more solid structure, cooperation across the board, inclusion and participant of different VET students and stakeholders, as well as predictable and transparent financing.

Overall, the main responsibility for ensuring good quality of education lies with the individual tertiary vocational school. However, other actors in the sector, such as the ministry of education and research, county authorities, and school owners, can also bring their influence in different ways. Though this also require having a quality assurance system that can be used to find

out the extent to which tertiary vocational education succeeds in achieving the national objectives through quality indicators that are relevant to the tertiary vocational education. Among these indicators there are questions about quality assurance systems, the proportion of teachers who participate in continuing education and training, the completion or drop-out employment after graduation and satisfaction with competence achieved. Relevance to working life is particularly emphasised in in-depth discussions related to quality in higher vocational education. Reference is made to the fact that the concept of relevance is both about work experience in education, the importance and suitability of education for actors in the labour market and the transition from education to relevant employment.

Viewing relevance of tertiary vocational education in the long-term perspective, requires also a student-centred perspective on the concept of quality in tertiary vocational education. This is elaborated by highlighting that it is the goal for VET students to achieve the best possible results, and be well prepared for a future professional career, as well as complete the education as efficiently as possible. The importance of engaging the students, and contributing to high motivation, is emphasised. Individual tertiary vocational schools themselves have the main responsibility for ensuring good quality of education and must have systems in place to ensure quality in education. At the same time, the NOKUT also has an important role on behalf of the country's authorities when it comes to ensuring quality in the tertiary vocational education. So, NOKUT has control responsibility and supervises the institutions' efforts to ensure and develop their own quality of education. Requirements relating to the systematic quality work of tertiary vocational schools are set out in Tertiary Vocational Education Act, the Tertiary Vocational Education Regulations and Tertiary Vocational Education Supervision Regulations, and NOKUT carries out supervision based on these requirements.

2.5.3. Measures contributing to increased quality in vocational education.

The measures launched through tertiary vocational education report are linked to the four main national objectives as presented in the white paper: (1). The students must get involved in the subject and succeed in tertiary vocational education and training. (2). The academic environment must be up-to-date and practice-oriented vocational competence. (3). The tertiary vocational education sector must offer education that the labour market needs, and that

the students want. And (4). The tertiary vocational education sector must be well organised, with clear ownership and good management. So, as discussed above, all the four measures refer to the factors that are central to ensuring high-quality education. That is, these measures, regardless of which goal they are linked to, each is hence relevant for quality of vocational education development. It is also emphasised in the tertiary vocational education report that, to recruit good students, it is therefore important that tertiary vocational education is a visible and attractive educational alternative. In other words, measures to promote the objectives of visibility and attractiveness are also highly relevant to the quality of education. The intended effects of each measure on the quality of education may be direct or indirect. What can be referred to as indirect contributions to quality in VET sector are, for example, the measures to improve the knowledge base discussed above, and measures for better organisation and management. The relationship between quality and management of tertiary vocational schools is highlighted in several contexts through the tertiary vocational education report. Among other things, it is pointed out that attractive vocational school involves engaged students who take part in the management and influence development.

2.3.4. Measure related to the students' engagement and success.

This measure aims at ensuring that students are involved in subject and succeed in tertiary vocational education and training. This in various ways contribute to the VET students' well-being, living conditions, and learning environment, which are factors that can have a major impact on whether the students are engaged and motivated, and to what extent they have attention focused on academic and school-related activities and the opportunity for influence. The measure related to VET students' engagement and success is herein emphasised as the important element regarding quality of vocational education. In addition, this measure also touches on other measures such the measures aimed at admission to studies or transitional arrangements between tertiary vocational education and university or college education. These measures are intended to contribute to high quality in admission to studies, as well as attractiveness by clarifying through admission requirements that tertiary vocational education is at the level that is above upper secondary vocational education. Measures that affect transitional arrangements are also largely about attractiveness, that tertiary vocational education can be a way forward for students who already have a degree from university or college.

Hence, measure related to students' engagement and success largely support a student-centred perspective on the concept of quality, considerable emphasis is placed on student participation and results. Further comments are made on this as an objective and its association with a measure on affiliation with the student welfare organisation. One of the measures linked to this main objective is to give the students in vocational schools a conditional right to associate with student welfare organisation. This can help to strengthen the attractiveness of tertiary vocational schools and VET students' welfare services, so that a more equal offer is ensured for tertiary vocational education students and students at universities and colleges.

In connection to this measure, Parliament's deliberations adopted a resolution that asked the Government to consider whether the vocational schools should, according to certain criteria, be obliged to join the student welfare organisation. Though the measure concerning the right to associate with the student welfare organisations has been followed up through legislative amendments, however, the right to association with welfare organisations is for all vocational schools, and the conditions laid down in the original proposal have not been continued. This is because a majority of the Parliament asked the Government to propose that all tertiary vocational schools should have the right to be affiliated with the student welfare organisations, regardless of their size and the scope of their education. In the processes prior to the amendment, it was discussed whether a right of association with the welfare organisation should be granted, or whether a duty to link to the welfare organisation should be introduced. In consultation on the new Tertiary Vocational Education Act and amendments to the Student Welfare Act, the Ministry of Education and Research asked for the consultative bodies' preliminary views on whether there should be a statutory obligation to be affiliated with a student welfare organisation. The Ministry's summary of the consultative bodies' views shows that a minority wanted vocational schools to have both right and obligation to membership in student welfare organisations, while most were in favour of legislating the right to membership, several county municipalities/county vocational schools expressed that they believed that there should be a statutory obligation to membership for everyone.

On the other hand, for vocational schools or for vocational schools over a certain size, expressed that they believed that they believe that it is important to ensure that all tertiary vocational education and training students have

the same and equal rights as other students in universities and/or colleges. Other consultative bodies expressed the view that the enactment of a duty is not appropriate, and pointed out in this connection, inter area, that the students' overall needs should form the basis for each vocational school's assessment regarding affiliation with student welfare organisations. In the report, it is observed that there are different perceptions about the importance of this measure. Both from several vocational schools and from the student representatives, it is emphasised that vocational school students are a variable student group with very different needs. Thus, not everyone has a need or interest in the student welfare organisation. For others, however, membership in the student welfare organisation is important. A county vocational school expressed that it has been shown that this measure was not as important as vocational school originally thought, and they have experienced that the VET students do not have the desired connection to the student welfare organisation. It is also pointed out from some other vocational schools that the students themselves do not have the desired membership in the student welfare organisation, because students do not feel that they need it. In this connection, it is commented that the students are largely adult part-time students who take online courses with or without gatherings.

VET students engage in a diverse range of courses whose scope is broader than that offered through other education sectors. These courses range from those with very specific purposes (e.g., skill development for licensed roles such as the occupational and workplace safety, lifting, welding and machinery certification), multi-year courses leading to high level qualifications associated with paraprofessional occupations in VET sector through to degree programmes in the universities leading to prestigious occupations such as law, medicine, or physiotherapy. In VET, there is also a range of adult learning and development provisions, as well as recreational pursuits, which in some systems comprise an element of vocational education and training under the guise of the adult or continuing education that can also include general education provisions aligned to assist adult learners to secure entry into the university. In these ways, the educational programmes that comprise vocational education and training lead to certification at a range of levels of educational achievement by a very diverse cohort of students.



SECTION - 3.

Vocational education and training offers

3.1. Admission to vocational education and training

Vocational schools in Norway offer a tertiary vocational education that is based on vocational competence. So, the admission requirement is often a vocational certificate, though general study skills or practical skills can in given context also fulfil the requirements. As outlined in section-2, the courses are usually from six months to two years, with the possibility of a one-year professional extension. There are also shorter industry courses at vocational school level that give study credits. To be admitted, the student can apply for admission to many vocational schools through the [Samordna opptak web-portal](#).

On February 01st of each year, a study overview is published with admission requirements for vocational schools as admissions go through The Norwegian Universities and Colleges Admission Service (NUCAS) that coordinates admission to undergraduate programmes at all universities, state university colleges and some private university colleges in Norway. Certain studies have an application deadline as early as on March 01st, but the usual application deadline is on April 15th. It is also possible to apply for admission to some private vocational schools by contacting the school directly. In some cases, the application deadline may vary from school to school. Some schools have rolling admissions until the education starts. So, the student must check the relevant schools to find out more about the application deadline and how to apply.

When it comes to students' loans, grants, and costs at vocational school some vocational schools are free, while others cost money. Though the student pays for materials and equipment, the students are usually entitled to support from [Lånekassen](#). For public owned vocational schools, some schools are financed by the state and are free. Some courses still require the students to pay for materials and equipment. Online and part-time studies may incur an additional tuition fee. For private owned vocational schools, most of them do not receive support from the State. The education is then financed, among other things, by a fee that the students must pay. The price of the course varies depending on the education and place of education. All vocational school education must be approved by [NOKUT](#), which gives

the right to support from the Lånekassen (Norwegian State Educational Loan Fund). Students can apply for several scholarships or grants. These are often aimed at fields of study or applicants living in a specific geographical area.

3.2. Admission requirements to vocational education and training

The most common entry requirement for the most vocational schools is a vocational certificate or journeyman's certificate. Students can also enter some vocational school courses with general study skills, completed and passed upper secondary education in a vocational subject or with practical skills.

1. **For the 3-year vocational course:** on some vocational school courses, the students can apply for admission without a vocational certificate or journeyman certificate if they have completed and passed upper secondary education.
2. **For real competence:** it is also possible to apply for a number of vocational school courses with background in practical skills. However, some vocational school courses require professional approval, authorisation, or certification. Students cannot apply for these vocational school educations with background in vocational training.
3. **For general study skills:** many vocational school courses can also be applied for with a background in general study skills.

Each individual vocational school decides for itself which professional or which journeyman certificate, or which professional competence, meets requirements for admission to its courses. Individual vocational schools also have their own rules for what qualifies as real competence for their studies. The same course may therefore have different requirements at different vocational schools. Some vocational schools also have special admission requirements. Students can apply for many of the vocational school courses via Samordna opptak. As regards to other vocational school courses, which do not have an application via Samordna opptak, students must contact each individual vocational school. An overview of all approved vocational school educations can be found at NOKUT website. But [the training offices](#) can also provide the information on admission requirements for vocational schools within their industry. [Vilbli.no](#) has an updated overview of all training offices in Norway.

3.3. Examples of vocational education and training offer

Education in stoma for health professionals

Health professionals, both in specialist health service and in municipal health and care service, need increased competence about stoma and how to contribute with information, guidance and follow-up to a person who is going to have or has had a stoma. Ostomy patients should, to the greatest possible extent, be able to have a good quality of life and achieve best possible functional and coping skills, independence, and participation socially and in society.

Education in wounds, wound treatment for health professionals

Systematic treatment of wounds requires expertise on the part of the practitioner and good organization of the business and interdisciplinary collaboration. Health professionals in the specialist health service and in the municipal health and care service need increased competence in wounds, wound healing, wound treatment, and prevention of wounds and how health professionals can contribute with observation, mapping, and assessment of chronic and surgical wounds.

Engineer Officer

Training as an engineer officer provides the theoretical competence required to obtain the highest engineer officer certificate according to current requirements. The education lasts two school years and gives training at management level in machinery, electrical and electronic systems and control installations, maintenance and repairs, control of the ship's operation and care for people on board.

Illustration

Students learn to master commercial visual communication. Students will work with illustrations for text, advertising, cartoons, newspapers, books, posters, computer games, animation, and packaging. Idea development and creative processes have a strong focus throughout the course by combining theoretical teaching with practical tasks, both in the form of own projects and assignments from real customers. Students largely work independently with tasks, but they will also solve cases in interdisciplinary groups, while working with both digital and physical techniques.

Electrical engineer

Electrical contractors feel that far too many skilled electricians disappear to other jobs. A lack of expertise also means that installation tasks are moved to other professional groups. This study contributes to required updating of electricians and in that way retain more skilled professionals in the industry. This study has been developed in collaboration runs over two semesters. The course is online and can be completed while one is at work, regardless of where they live in the country.

Building automation

With a previous vocational school education in electrical engineering or KEM, students can now take advanced courses in Building Automation. Here they build directly on the foundation subjects they already have. The study is covered by public funds. Students can therefore apply directly to the 2nd year and take main subjects. The teaching is spread over three semesters (1.5 years). There are only 2 three-day meetings per year. The rest take place online as e-learning.

Introduction to programming and IT development

Short vocational education that is provided over 20 weeks based on upper secondary education (certificate in either the ICT service subject, the IT developer subject, or Computer Electronics) or an equivalent vocational qualification. The education is called "Start IT - introduction to programming and IT development" and gives 30 credits.

Electric power

The electrical power industry encompasses the entire energy chain, from production and distribution to consumption, and is a rapidly developing field. Alternative energy and automation are key words here. There is a great need for vocational school engineers in electrical power. Students also get the theory required for authorisation as an electrical installer. In Norway, electric power industry has been strongly linked to hydro-power. Now it is alternative energy sources and energy carriers and the rapid development in automation that has strong impact on subject area.

Energy technician

Study plan has been developed in collaboration with Skagerak Energy, which on behalf of the industry wanted further education and knowledge

updating for the energy fitter to have the right skills to meet future challenges in the industry. Green shift, professional management, digitalisation, communication, and documentation are some keywords. The course is designed as an online course so that the students can work during the course.

Administrative coordinator

The education for those who want to work as administrative support for managers or management groups. As an administrative coordinator, one has a central role in tying together various subject areas and departments in a company. Students are training to be an active partner and facilitator, and are characterised by being systematic, service-oriented, responsible, and proactive. The course is well adapted to today's labour market and competence requirements and provides the necessary knowledge and competence to work with administrative tasks in public and private enterprises.

Pilot training

Training at the Pilot Flight Academy takes just two years, and the newly graduated pilots will have all the certificates they need to start an airline career. Becoming a pilot requires both motivation and commitment, and students are challenged on their efforts and attitudes from the first day of school.

Electronics

Electronics study is offered as an online study with collections, organized part-time with 120 credits spread over three years. The development of electronics gained momentum with semiconductors and the transistor in the 1950s, and today there are electronics in almost everything that uses electricity. More and more fields are using electronics for controlling and monitoring processes. The world is becoming automated, as a vocational school engineer students take part in exciting development. Electronic equipment is increasingly used for controlling larger systems.

Deck officer at management level

The Norwegian maritime cluster has a strong position internationally. Therefore, more and more people want to train in the maritime industry. The vocational school gives students an education that provides a basis

for completing maritime certificate at management level. With maritime certificate, the students get the opportunity to work both in Norway and internationally in an industry that is becoming increasingly important. The world's oceans have only just been explored, and utilization of the ocean space is among Norway's most important investment areas in the future. There is a need for sailing personnel, but land-based operations also have a great need for maritime expertise.

Fashion design and modelling

Students take on different tasks and positions in the fashion industry. Fashion design and modelling associate is an intensive course over one year. This education gives students skills in fashion illustration, colour, and textile theory, in addition to teaching them the creative process from idea to finished product. The education is divided equally between the subject areas of design and modelling. Design deals with creative process, while modelling is the translation of an idea into a finished product through draping, pattern construction, cutting and sewing. In modelling, pattern construction, sewing of products for women is the focus.

Network administrator with design

The course Network administrator with design is practically oriented, and through training students are trained in the installation, administration and operation of servers and networks in the classroom. Throughout the course, the study focuses on student-acquiring sufficient knowledge and skills related to IT security. Business demands updated expertise in IT security solutions, and through a combination of theoretical reviews and practical training, students acquire the necessary knowledge and skills in the design of relevant security solutions, as well as the configuration and implementation of concrete security measures.

Airline Ready Programme

The Airline Ready program takes the students from no or little flying experience to having all the certificates and rights required to be able to work as a First Officer for European airlines. The education takes 20 months to complete. The Airline Ready Program is a comprehensive integrated pilot education where theory and flight lessons are woven together, which gives students an exciting variation between academic studies and practical flying.

Network and IT security

Practical IT education that teaches students to fight hacking or computer crime. The urgent need for expertise in IT security provides solid job opportunities after the degree. Cyber-attacks are a real threat to society and business. The loss, theft of sensitive information can have disastrous consequences for companies or businesses. Leaks of internal documents with marketing or production plans can, for example, weaken company's competitive advantage in the market. In the worst case, such incidents can lead to large financial losses, damage the company's reputation, and undermine the trust that their customers have in them.

Network and system administration

Practical IT education that teaches students administration of networks and systems. The overall study centres around Microsoft and Unix-based technologies, and infrastructure for networks and server operation with a focus on IT security. Indeed, technological development has given us significant gains, and Norway is today considered one of the most digitised countries in the world. Digitisation has made the everyday lives of individuals and companies more efficient and is an important source of economic growth and productivity. Most socially important functions are now managed digitally, which also creates vulnerabilities, challenges.

Music design

Turn student interest in music production and sound design into a career path! The study offers practice-oriented education rich in opportunities. Music design is a two-year programme where, using the modern music technology, students work with composition, arrangement, production, and sound design to realise their own and the customers' ideas. With the help of music composition and sound production, the students can elicit emotions and moods, contribute to storytelling, and help strengthen a brand. Therefore, music designers are in demand not only in the creative industries, but also among more commercial players.

Computer technology, server, and network operation

This course is suitable for those who are interested in working with IT and want an education with good job opportunities, or for those who want retraining. The education covers the structure and the operation of the computer, hardware, operating system with user-specific configuration

and troubleshooting. The study also includes networks and security and has a separate subject on support and documentation. Teaching 2 to 3 days per week, the other days are spent on self-study and prepared lab and project assignments. This makes it possible to combine the study with an internship or part-time job.

Art photography

A completed and approved two-year higher vocational education gives 120 credits, general study skills and the degree higher vocational school degree in Fine Art Photography. Focus on technical workshops, extended knowledge of alternative techniques, media, film, staged photography, and documentary. At the forefront is the goal of developing personal expression. The students gain insight into the tools that are available, so that they can choose the ones that are most appropriate for their project. Students get to try their hand at different genres to find new approaches to what interests them.

Tourism coordinator

A practically oriented and directly job-qualifying education. The Tourism Coordinator course gives students a broad understanding of the tourism industry, and of the importance the industry has nationally and internationally. The teaching is practically oriented, and the basis for the practical education and training is a theoretical review of the tourism industry, tourist geography, culture and tourism. Throughout the course, a student is trained in travel planning and implementation of guiding at travel destinations, design of marketing material with good and selling descriptions as well as use of digital and social media in marketing.

Vocational education - Wine and Spirits


The vocational training lasts 1/2 year, and qualifies for serving, selling, importing, and producing wine and spirits. The education includes thorough theoretical and practical training in the field of wine, beer, and spirits. The education is also available as an online course with collections. The study gives 30 credits, and it is particularly aimed at Norwegian labour market; providing good professional competence for typical wine, beer, and spirits-related occupations in Norway, as well as a thorough introduction to Norwegian laws regarding the trade and consumption of alcoholic beverages.

Report references

- Vocational education: purposes, traditions and prospects (Canning, 2013). Chapter 01. Vocational Education: A field and sector of education. PDF Extracted on March 25th, 2023.
- [The Norwegian Directorate for Higher Education and Skills.](#)
- [Act relating to tertiary vocational education.](#)
- [The 2023 Vocational School Evaluation Report.](#) Final report: target achievement and effects of measures in the vocational schools.
- [The Norwegian Universities and Colleges Admission Service.](#)
- [The Norwegian Agency for Quality Assurance in Education.](#)
- [The training offices:](#) a collaboration between companies and enterprises regarding the intake and training of apprentices.
- [The counties' information service for applicants to upper secondary education and training.](#)
- [Lånekassen:](#) the public administrative body, under the Norwegian Ministry of Education and Research.
- [The Norwegian Directorate for Education and Training.](#)
- [The Ministry of Education and Research.](#)
- Vocational education and training in Europe: [The Norwegian context.](#)
- [Tertiary vocational education:](#) Higher vocational education lasting from six months to two years.

 www.terrapacis.org

 info@terrapacis.org

 +479 69 51 953



**Iceland
Liechtenstein
Norway grants**

Programme Operated by:



Foundation for the Development
of the Education System



Material produced with the financial support of the EEA & Norwegian Grants; its content does not reflect the official opinion of the Programme Operator, the National Contact Point, or the Office of the Financial Mechanism. The information and opinions expressed are the sole responsibility of the author(s).

Edition: ©2023 **Vocational Education Report**

Copyright: All rights reserved.

Publisher: **TERRAM PACIS Editorial.**

Reference: TPOER-039-VER/26-04-2023